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CITY OF PALM DESERT
RIVERSIDE COUNTY, CALIFORNIA



COMPREHENSIVE GENERAL PLAN

Prepared for

**CITY OF PALM DESERT
73-510 FRED WARING DRIVE
PALM DESERT, CA 92260**

Prepared by

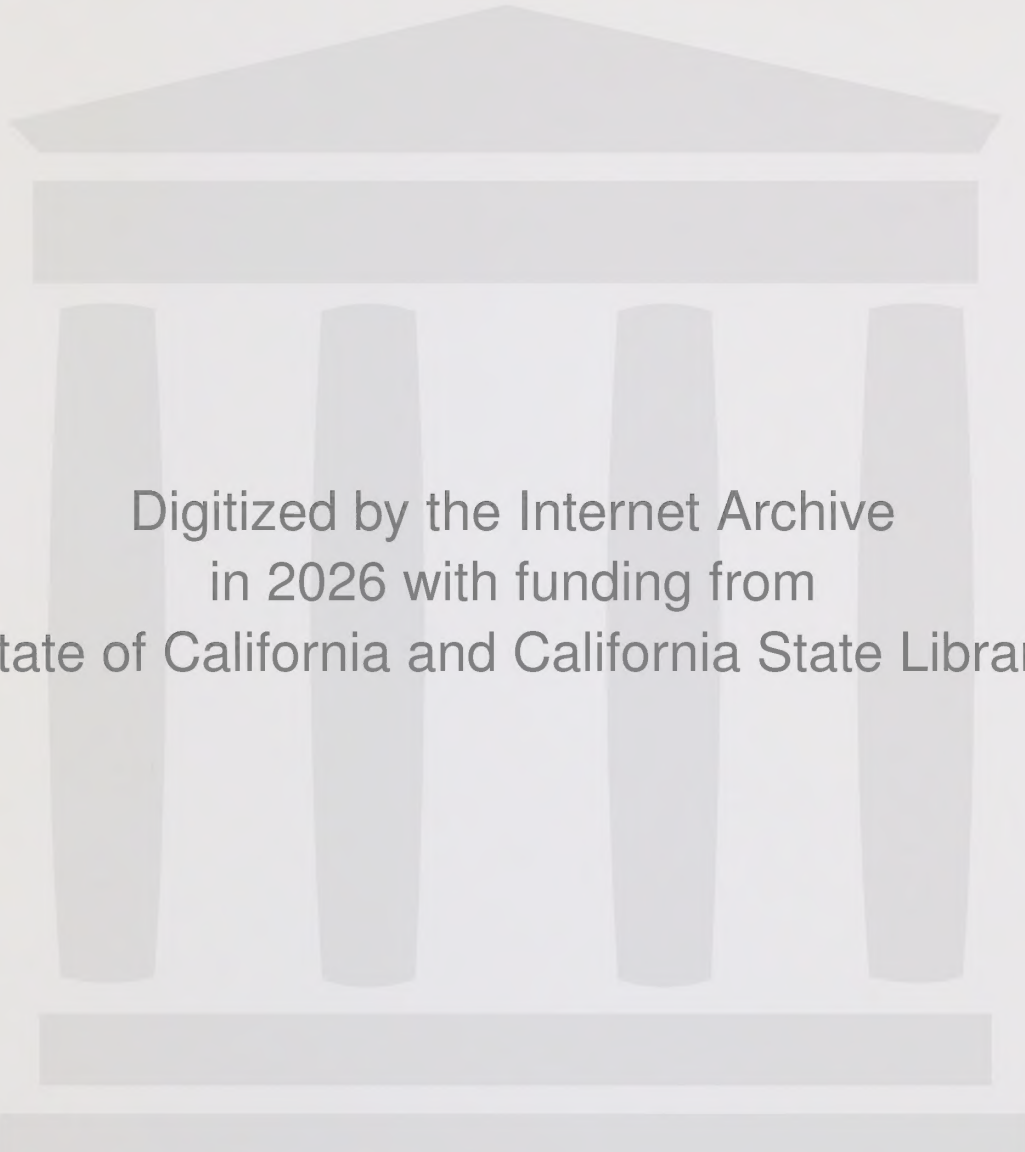
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COMMUNITY DEVELOPMENT DEPARTMENT
CITY OF PALM DESERT**

and



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Adopted March 15, 2004



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CITY OF PALM DESERT

COMPREHENSIVE GENERAL PLAN

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Prepared By

Community Development Department

City of Palm Desert

73-510 Fred Waring Drive

Palm Desert, CA 92260

and



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Palm Springs, CA 92262

**City of Palm Desert
Riverside County, California**

**COMPREHENSIVE
GENERAL PLAN**

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Adopted March 15, 2000

CITY OF PALM DESERT
DRAFT
COMPREHENSIVE GENERAL PLAN

TABLE OF CONTENTS

	Page
I. INTRODUCTION TO THE GENERAL PLAN	
Introduction	I-1
II. ADMINISTRATION AND IMPLEMENTATION	
Administration Element	II-1
III. COMMUNITY DEVELOPMENT	
A. Land Use Element	III-1
B. Circulation Element	III-42
C. Housing Element	III-85
D. Parks and Recreation Element	III-114
E. Community Design Element	III-135
F. Arts and Culture Element	III-156
F. Economic and Fiscal Element	III-176
IV. ENVIRONMENTAL RESOURCES ELEMENT	
A. Archaeological and Cultural Resources Element	IV-1
B. Biological Resources Element	IV-16
C. Water Resources Element	IV-38
D. Air Quality Element	IV-52
E. Energy and Mineral Resources Element	IV-63
F. Open Space and Conservation Element	IV-76
V. ENVIRONMENTAL HAZARDS	
A. Geotechnical Element	V-1
B. Flooding and Hydrology Element	V-23
C. Noise Element	V-43
D. Hazardous and Toxic Materials Element	V-57
VI. PUBLIC SERVICES AND FACILITIES	
A. Water, Sewer and Utilities Element	VI-1
B. Public Building and Facilities Element	VI-16
C. Fire and Police Protection Element	VI-26
D. Schools and Libraries Element	VI-38
E. Health Services Element	VI-50
F. Emergency Preparedness Element	VI-62

TABLE OF CONTENTS (cont'd)

VII. GLOSSARY

Glossary

VII-1

LIST OF TABLES

Chapter III

III-1	Proposed Land Use Designations	III-4
III-2	Land Use Buildout Statistical Summary (City Limits)	III-12
III-3	University Park Land Use Plan Statistical Summary	III-13
III-4	Residential Land Use Buildout Statistical Summary	III-27
III-5	Commercial Land Use Buildout Statistical Summary Total Planning Area	III-32
III-6	Industrial Land Use Buildout Statistical Summary City Limits	III-35
III-7	Public/Quasi-Public Lands Statistical Summary City Limits	III-37
III-8	Open Space Lands Statistical Summary	III-39
III-9	Level of Service Description Mid-Link and Uninterrupted Flow	III-49
III-10	Level of Service Descriptions Signalized Intersections	III-50
III-11	Level of Service Volumes/Capacity Values (Average Daily Trips-ADT)	III-50
III-12	General Plan Roadway Analysis	III-63
III-13	Intersection Impact Analysis Current Conditions & Post 2020	III-67
III-14	Age Distribution, 2000	III-91
III-15	Ethnic Characteristics, 2000	III-91
III-16	City Household Income Distribution, 2000	III-92
III-17	City Employment by Industry, 2000	III-92
III-18	Major Employers, 1999	III-93
III-19	City Housing Characteristics	III-93
III-20	Age of Housing Units	III-94
III-21	Vacancy Status - 2000	III-94
III-22	Housing Tenure - 2000	III-94
III-23	Overcrowding, 1990	III-95
III-24	Values, Specified Owner-Occupied Housing Units, 2000	III-95
III-25	Vacant Residential Land, 2000	III-96
III-26	City of Palm Desert Planning Department Fees	III-100
III-27	Residential Development Standards Minimum Area Requirements for Residential Zones	III-101
III-28	Minimum Development Standards for Residential Zones	III-101
III-29	City of Palm Desert Typical Single-Family Building Permit Fees	III-102
III-30	Age of Housing Units	III-103
III-31	Future Housing Needs by Income Category, 1998-2005	III-104
III-32	Affordable Housing, Income Limits County of Riverside, 2001	III-107
III-33	Representative Mobilehome Park Rental Rates in Palm Desert, 2000	III-107
III-34	Representative Apartment Market Rental Rates in Palm Desert, 2000	III-108
III-35	Quantified Objectives Matrix, 1998-2005	III-109
III-36	Standards for Recreational Areas	III-116
III-37	City of Palm Desert Parks Inventory	III-118

III-38 Trail Standards	III-125
III-39 Age Distribution, 2000	III-175
III-40 City Household Income Distribution, 2000	III-176
III-41 City Employment by Industry, 2000	III-176
III-42 Employment of Palm Desert Residents, 1990	III-177
III-43 City of Palm Desert Major Employers, 1999	III-178
III-44 City of Palm Desert Housing Characteristics, 1990 vs. 2000	III-179
III-45 1990-2002 Taxable Sales Trends, City of Palm Desert	III-182
III-46 Hotel/Motel Inventory for the Coachella Valley, 1999	III-183
III-47 City of Palm Desert Transient Occupancy Tax (TOT) Revenues	III-184
III-48 Building Permit Activity, 1990-2000	III-186
III-49 New Construction Activity, 1995-2000	III-187
III-50 Palm Desert General Fund Revenues Historic Trends, Fiscal Year 1996/97 to 2000/01	III-188
III-51 Palm Desert General Fund Expenditures Historic Trends, Fiscal Year 1997/98 to 2000/01	III-190

Chapter IV

IV-1 Sensitive Flora Reported From the Vicinity of Palm Desert	IV-28
IV-2 Sensitive Invertebrates Reported From the Vicinity of Palm Desert	IV-28
IV-3 Sensitive Fish, Amphibians and Reptiles Reported From the Vicinity of Palm Desert	IV-29
IV-4 Sensitive Birds Reported From the Vicinity of Palm Desert	IV-29
IV-5 Sensitive Mammals Reported From the Vicinity of Palm Desert	IV-30
IV-6 Comparison of Historical Inflows and Outflows	IV-43
IV-7 Mineral Analysis of representative Surface Waters	IV-46
IV-8 State and Federal Ambient Air Quality Standards	IV-54
IV-9 Designated Open Space Lands	IV-80

Chapter V

V-1 Potential Earthquake Sources for the Palm Desert Planning Area	V-12
V-2 Major Drainage Channels	V-30
V-3 Noise Contours for 2020	V-49
V-4 Land Use Compatibility for Community Noise Environments	V-51

LIST OF EXHIBITS

Introduction

I-1 City of Palm Desert General Plan Study Area Map	I-5
---	-----

Chapter III

III-1 Master Land Use Map	III-14
III-2 University Park Land Use Map	III-21
III-3 Existing ADT Volumes	III-52
III-4 Existing Volume Capacity Ratio	III-53

III-5 Palm Desert General Plan Street Cross-Sections	III-56
III-5a Palm Desert Arterial Intersection	III-57
III-6 Palm Desert General Plan Circulation Master Plan	III-61
III-6a Palm Desert Traffic Circulation Network North Planning Area	III-62
III-7 Palm Desert Post 2020 Average Daily Traffic	III-65
III-8 Palm Desert General Plan City Parks and Recreation Program	III-119
III-9 Golf Cart and Bike Path Routes	III-127

Chapter IV

IV-1 Cultural Resources Sensitivity Assessment North Section	IV-8
IV-2 Cultural Resources Sensitivity Assessment South Section	IV-9
IV-3 Comprehensive Biological Resources South Section	IV-24
IV-4 Comprehensive Biological Resources Middle Section	IV-25
IV-5 Comprehensive Biological Resources East Section	IV-26
IV-6 Comprehensive Biological Resources North Section	IV-27
IV-7 Mineral Resources Zones in the Planning Area	IV-66

Chapter V

V-1 Seismically Induced Rock Falls and Landslide Susceptibility	V-4
V-2 Seismically Induced Settlement	V-5
V-3 Wind Erosion Hazard Zones	V-8
V-4 Faults and Fault Zones in the Palm Desert Planning Area	V-13
V-5 Liquefaction Susceptibility in the Palm Desert Planning Area	V-16
V-6 Flood Zones in the Palm Desert Planning Area	V-28
V-7 Master Drainage Plan	V-33

CITY OF PALM DESERT

COMPREHENSIVE GENERAL PLAN

CHAPTER I

INTRODUCTION TO THE GENERAL PLAN

This introduction to the City's Comprehensive General Plan provides the broadest overview of this important document, what it is, what information it contains, how it was developed, and how the Plan is to be used. This Introduction also summarized the City's history and important features. The size of the planning area, the state of existing development and the community's valuable resources are also summarized and maps of the region and City boundaries are provided. The relationship of the General Plan to the Environmental Impact Report is explained.

INTRODUCTION

CITY OF PALM DESERT COMPREHENSIVE GENERAL PLAN

All incorporated towns and cities, and all counties are required by the California Government Code to prepare comprehensive, long-term general plans, which direct development of the community. As an official document of the City of Palm Desert, the Comprehensive General Plan provides the goals, policies and programs to guide the development of the City and to preserve its valued assets, resources and quality of life. In addition to goals and policies, the General Plan includes issues discussions, diagrams and maps, tables and charts that provide direction for the prudent and conscientious management of existing and future development.

The makeup and composition of the City of Palm Desert are briefly described below. The planning area, including the City limits, the City Sphere-of-Influence and additional lands are described, as are the regional context and long-term perspective taken by the City in developing this document. Finally, this brief discussion provides an overview of the Comprehensive General Plan and the Environmental Impact Report, and their roles as the principal development guides for community development.

City of Palm Desert

The City of Palm Desert is the premier business, resort and residential community in the Coachella Valley. Located in the geographic and demographic center of the valley, Palm Desert is well served by major transportation routes and is actively working to add commuter rail and express mass transit service to its regional access system. Major recreational and educational facilities are also becoming integral parts of the range of services and facilities available in the City. Incorporated in 1973, Palm Desert has become the valley's commercial powerhouse but at the same time has led the way in the preservation of open space areas and the integration of public art into the development of the community.

Substantial portions of the City are already developed, and remaining vacant lands are generally located north of Frank Sinatra Drive and extend north to US Interstate-10. Major planning efforts in portions of this "University Park" area have been completed and development is underway or is imminent (2003). The City has some Sphere-of-Influence (SOI) lands north of Interstate-10 and east and west of Washington Street, including Del Webb Sun City and the community of Bermuda Dunes east of Washington Street and south of I-10. The largest area of City SOI lands is located at the foot and within in the Santa Rosa Mountains south of the current city limits, including the Cahuilla Hills and Royal Carrizo neighborhoods.

The City of Palm Desert corporate limits encompass about 25 square miles. The City's Sphere-of-Influence (SOI), County managed lands over which the City has an advisory role, totals another 41.5 square miles. An additional 68 square miles have been added to the City Planning Area, which totals approximately 134 square miles.

Development over the past decades has been focused along the Highway 111 corridor, the southern areas and portions of the valley floor. Within the corporate limits, remaining vacant but developable lands are located just south of US Interstate-10. Approval of new residential and resort development has been predominantly in this northern portion of the City and includes the new Palm Desert campus of Cal-State University -San Bernardino. Recently annexed lands have extended the city limits to Washington Street and LAFCO has placed the community of Bermuda Dunes within the City's Sphere-of-Influence.

The City is situated across a variety of geographic and geologic conditions, including a mid-valley alluvial plain and limited mountain foothills, as well as the sandy desert floor. The Santa Rosa Mountains bound the City on the south. The extensive alluvial deposits formed by drainage from these mountains form the alluvial fans and plains on which portions of the City has developed. The adjoining mountains and the San Jacinto and Little San Bernardino Mountains to the west and north, respectively, also provide dramatic and valuable viewsheds. The City is a geographically and biologically important location, where significantly differing wildlife habitat, landscape and geology meet.

The Comprehensive General Plan and Environmental Impact Report

The Comprehensive General Plan and associated Environmental Impact Report (EIR) are being developed to serve as a framework for decision-making regarding the appropriate types, intensities and conditions by which development is to be permitted in the City. The process of preparing these documents has involved thoughtful and extensive community consultation, including the identification of issues, and the development of goals, policies, and programs. It also involves the consideration of various alternatives, the consensus selection of preferred courses of action, and finally, the development of strategies to implement the Comprehensive General Plan.

As required by state law, each jurisdiction must prepare and adopt a General Plan and supporting documentation to provide the basis for the community's development. The Plan identifies the environmental, social and economic goals, and sets forth policies, standards and programs for existing and future development. The General Plan also provides the framework to analyse and respond to changing circumstances as the City continues to grow and evolve.

The background information and issues to be summarized in the General Plan are discussed in greater depth in the General Plan EIR. Therefore, both documents provide City officials and the general public with vital information necessary to make informed decisions. The Comprehensive General Plan and the EIR also serve as the basis for subsequent planning efforts, including the preparation of Specific Plans and special environmental and planning studies.

The General Plan Process

The City's previous General Plan was last comprehensively updated in the early 1980s. Since that time, there have been numerous updates to individual elements of the plan but no comprehensive update. Based upon a need to respond to current social, economic, physical and political conditions, the City Council determined that a comprehensive update to the General Plan was necessary.

General Plan Advisory Committee

The City Council appointed a twenty-one (21) member General Plan Advisory Committee (GPAC) to serve as the primary means of citizen involvement in the formulation of the draft General Plan. A preliminary schedule for General Plan element preparation and review was prepared, with the GPAC review process beginning in February of 2001 and ending in January of 2003. The GPAC regularly met in noticed public meetings to discuss and review draft General Plan elements and their goals, policies and programs. The GPAC also took a City-wide field trip to orient GPAC members and to obtain a better understanding of community conditions, constraints and opportunities.

In advance of consideration by the GPAC, many elements were first reviewed by other City commissions and committees. At General Plan Advisory Committee meetings staff and consultant presentations were made, followed by preliminary votes to accept, modify or reject proposed goals, policies and programs. The proposed land use map designations received a substantial amount of citizen input and GPAC discussion during these meetings. Special newspaper notices were published in an effort to inform the public of proposed changes to be considered in the Comprehensive General Plan. The recommendations of the GPAC were forwarded to the Planning Commission and City Council for their review and adoption.

General Plan Format

The General Plan is organized into five major chapters: Administration, Community Development, Environmental Resources, Environmental Hazards, and Public Services and Facilities. Within each chapter are the various General Plan elements and their accompanying background information, goals, policies and programs. The Administration Chapter is comprised of the Administration Element.

Goals, Policies and Programs

Each element contains at least one goal statement and related policy statements and programs. A goal in the General Plan is the most general statement of community values and is expressed as a desirable end-state condition to be achieved now or in the future. The heart of the General Plan is contained within its policy statements. Policies further refine the goal statements and provide a clear direction for decision-making. Policies frequently include "shall" statements to provide unequivocal directives. Decision-making criteria, major development standards and funding priorities are best established by clear General Plan policies. General Plan programs are included as implementation measures needed to carry out related policy statements. Programs provide the basis for scheduling and assigning staff and other City resources to specific actions, which are needed to implement certain directives of the Plan.

Maps and Graphics

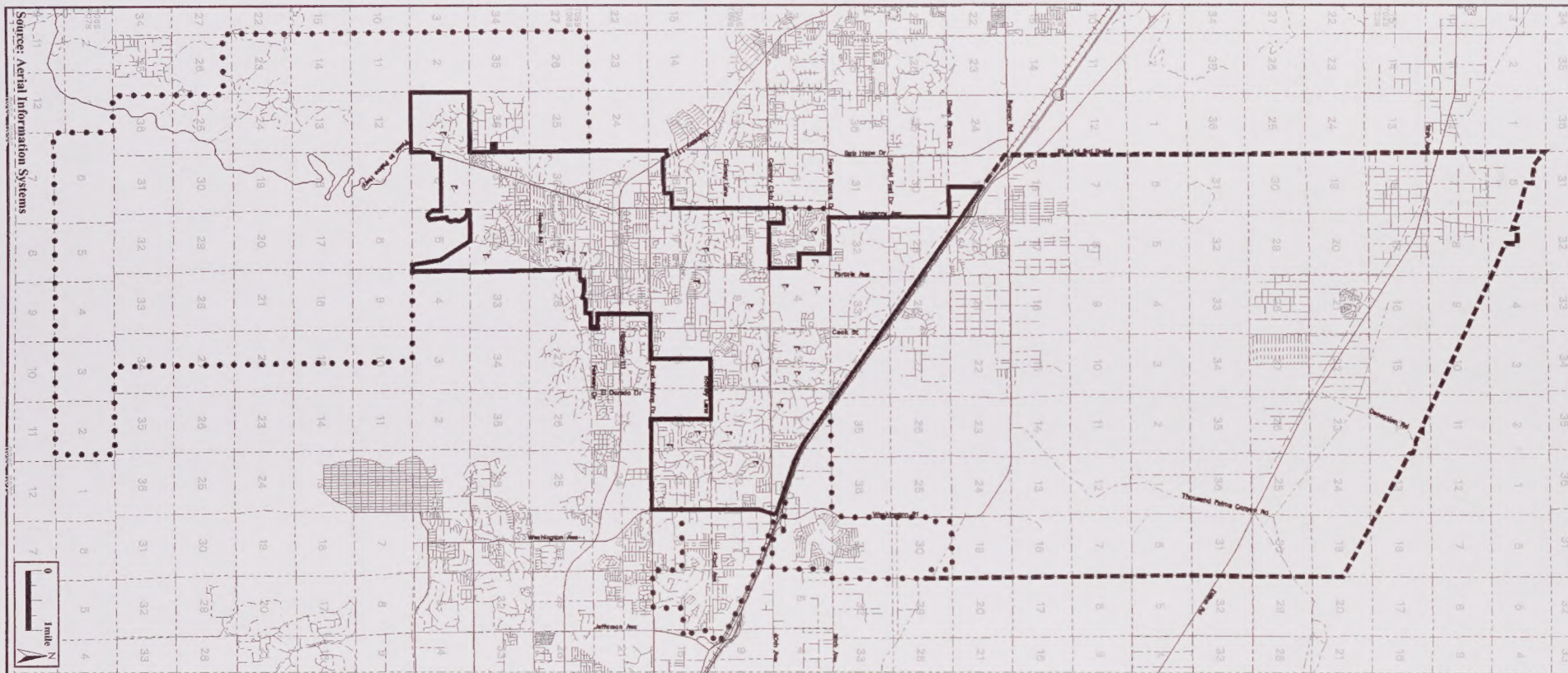
The maps and graphics included in the General Plan help to illustrate policies. For example, the land use map represents a series of policies for the type and intensity of future development to occur at various locations throughout the City and the planning area.

Specific Plans of Land Use

A Specific Plan plays an important role as a refined version of the General Plan, applicable to a specific portion of the community. Specific Plans often provide detailed design and analysis of complex mixed-use projects, and indicate precise land use locations and designs. Specific Plans contain text, exhibits, and diagrams indicating the distribution, location, and intensity of proposed land uses and the necessary public and private urban support systems, including streets, utilities and drainage facilities.

The standards and criteria by which development and, where applicable, conservation will proceed on the property are also defined in the Specific Plan. Additionally, a Specific Plan provides a program of implementation measures and financing necessary to carry out the project. It must also be consistent with all facets of the General Plan. In turn, zoning, subdivision, and public works projects must be consistent with an existing Specific Plan (Government Code Section 65455).

The City currently has four Specific Plans, including “Project Area 4”; “Palmas Village”; “West Hills”; and the downtown “Core Commercial”. These plans are self-contained or part of larger Redevelopment Agency project areas. These Specific Plans are considered as integral parts of the City’s General Plan and their land use plans and policies are reflected in the updated Comprehensive General Plan.



Legend

- • • • City Sphere of Influence
- City Limits
- - - General Plan Planning Area



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Palm Desert General Plan Area Map



Exhibit

I-1

CITY OF PALM DESERT

COMPREHENSIVE GENERAL PLAN

CHAPTER II

ADMINISTRATION AND IMPLEMENTATION

This Chapter of the General Plan addresses the administration of the Plan, through the Administration and Implementation Element. Key discussions in this element include the format and content of the General Plan, the various chapters and elements, determining consistency with the General Plan, amending the General Plan, purpose and scope of Specific Plans, and other means of implementing the Plan. The Specific Plan plays an important role as a refined version of the General Plan, applicable to specific portions of the City. Other components and aspects of the General Plan are also discussed in the Administration and Implementation Element, including environmental resource and hazards maps, design concepts, and procedural matters.

ADMINISTRATION ELEMENT

PURPOSE

The City Comprehensive General Plan is a policy and program document, which addresses all facets of community planning and management. The Administration Element provides direction on the implementation of the Plan. It provides background on the information set forth in the General Plan, describes its organization, the Plan's function and its relationship to other regulatory documents, including the California Environmental Quality Act (CEQA), the Subdivision Map Act, and the City Zoning Ordinance. General Plan review and amendment procedures are also set forth in the Administration Element. It is the intent of this Element to describe the various means by which the General Plan is implemented, including Element-specific implementation strategies, which are incorporated throughout the Comprehensive General Plan. This Element also sets forth goal, policies and programs intended to effectively administer the Comprehensive General Plan.

BACKGROUND

The Administration Element provides for the periodic review and amendment of the General Plan, establishing formal procedures to ensure that the Plan is maintained and kept current with changing conditions, and that it continues to reflect the goals of the community as a whole. The Element also facilitates the review and processing of land use and development proposals, the appropriateness of which are determined through a review of applicable policies and standards for consistency with the Comprehensive General Plan.

California Government Code (Section 65300) requires that incorporated communities and counties prepare and adopt a comprehensive, long-term General Plan which regulates the physical development of lands under the jurisdiction of, or having an influence upon, the community, including the City's legally recognized Sphere-of-Influence. The Comprehensive General Plan and its various elements are required to function as an integrated, internally consistent and compatible statement of policies (Government Code Section 65300.5).

State law also recognizes that special local conditions and circumstances must be accommodated and that the General Plan may take differing forms, while meeting its minimum requirements (Government Code Section 65300.7). The General Plan must be designed to be responsive to the variations in community size and density, fiscal and administrative capabilities, land use and development issues, and the needs of each community's residents (Government Code Sections 65300.9, 65302).

Format and Content

The Palm Desert Comprehensive General Plan is organized into five major chapters: Administration, Community Development, Environmental Resources, Environmental Hazards, and Public Services and Facilities. Within each chapter are the various General Plan Elements, providing background information and related issues, goals and specific policies. The Palm Desert General Plan is strongly supported by programs set forth in each element, that reflect the community's pro-active and balanced philosophy of local government. These have been consolidated and elaborated upon to provide implementation strategies to facilitate long-term planning and infrastructure development.

Goals, Policies, and Programs

The General Plan goals are developed as broad statements reflecting the City's values, aims and aspirations. These goals address the desired end-state of physical development of the City, as well as the preservation of the community's important environmental and cultural assets. The policies have been developed to further the goals of the Comprehensive General Plan, and to set forth specific performance requirements for each element. Programs accompanying the elements provide quantitative and qualitative targets, set forth the agencies most likely to carry out the program, and propose possible schedules for program implementation and periodic review.

Maps, Diagrams and Graphics

The General Plan is supported by a variety of maps, diagrams and illustrations, which reinforce the text of each element. Graphics are incorporated into the General Plan to delineate land use and circulation patterns, scenic highways, community focal points, open space and recreation facilities, biological and cultural resources, and areas requiring special consideration or study. Important or significant environmental resource and hazard areas are also mapped, as well as public and quasi-public facilities. These official maps carry equal authority to the goals and policies of the General Plan.

The Elements of the General Plan

California Government Code Section 65302 establishes the seven (7) mandatory elements of the General Plan: Land Use, Circulation, Housing, Conservation, Open Space, Safety, and Noise. The California General Plan Guidelines recognize that some of the required elements may be addressed in combination with other complementary elements, such as Open Space and Conservation.

All of the components of the mandated elements are found within the Palm Desert Comprehensive General Plan. This document integrates the mandatory and discretionary elements into five (5) major chapters, organized to reflect compliance with State requirements that the General Plan be internally consistent, comprising an integrated and compatible statement of policies for the City. Each element of the General Plan has equal legal authority.

Community Development Chapter

The Community Development Chapter most directly affects the character and quality of life of the community through the distribution of land uses, defining the intensity of commercial and other development, densities and types of housing, establishment of roadway and circulation plans, the planned provision of parks and recreational facilities, the establishment of architectural and community design guidelines, the preservation of open space and scenic vistas, and the development, preservation and enhancement of a healthy economy. This Chapter includes the following General Plan elements:

- * Land Use
- * Circulation
- * Housing
- * Parks and Recreation
- * Community Design
- * Arts and Culture
- * Economic and Fiscal

Environmental Resources Chapter

The resources of the physical natural environment, including man-made artifacts of historical or archaeological significance, biological resources, open space and conservation and other natural resources are described in this chapter. Goals and policies are set forth within each element to assure the preservation and enhancement of the physical environment and resources as important assets of the community. The Environmental Resources Chapter includes the following elements:

- * Archaeological and Cultural Resources
- * Biological Resources
- * Water Resources
- * Air Quality
- * Energy and Mineral Resources
- * Open Space and Conservation

Environmental Hazards Chapter

Communities are faced with a range of environmental hazards, which must be managed for the protection of the City, its residents and visitors. The hazards of the physical environment, including man-made hazardous conditions and toxic materials, are described in this chapter. Within each Element, goals and policies are set forth which identify specific hazards and means of assuring the protection of public health, safety and welfare. Hazards of particular concern to the City are given special attention in this Chapter. The Environmental Hazards Chapter of the General Plan includes the following elements:

- * Geotechnical (Seismic Safety, Soils and Erosion)
- * Flooding and Hydrology
- * Noise
- * Hazardous and Toxic Materials

Public Services and Facilities Chapter

The principal and primary concern of local government is the long-term provision of adequate levels of essential public facilities and services. Goals and policies are set forth in each element to assure adequate levels of services and facilities congruent with current and anticipated levels of development in the City. The Public Services and Facilities Chapter of the General Plan includes the following elements:

- * Water, Sewer and Utilities
- * Public Buildings and Facilities
- * Police and Fire Protection
- * Schools and Libraries
- * Health Services
- * Emergency Preparedness

Using The General Plan

Sometimes described as the “constitution” of the City, the General Plan is the foundation upon which all land use decisions are to be based. The Plan is a comprehensive information and planning guide established by State law to provide a framework for making informed decisions about the future of the community. The Plan identifies the community’s land use, circulation, environmental, economic and social goals and policies as they relate to land use and development. The General Plan and supporting environmental documentation identify concerns and issues important to the community, analyze them, and establish goals, policies, and program implementation measures, which resolve or effectively address these issues. It also provides the basis for a rational nexus to support development, mitigation measures and exactions. Special studies and performance programs are also integral parts of the goals, policies, programs, which assure effective implementation of the General Plan.

Consistency with the General Plan

Development proposals must be analyzed and tested for consistency with the goals, policies, and programs in every applicable element of the General Plan, regardless of whether they are initiated by a developer or the City. On an ongoing basis, the City must assure and maintain consistency of the General Plan with adopted Specific Plans and the City Zoning Ordinance. This test of General Plan compliance is also a required criterion for determining significant impacts under the provisions of the California Environmental Quality Act (CEQA).

Interpretation of the General Plan

In the event uncertainty exists regarding the location of boundaries of any land use category, proposed public facility symbol, circulation alignment, or other symbol or line found on the official maps of the Comprehensive General Plan, the following procedures will be used to resolve such uncertainty.

Boundaries shown in the General Plan and on official maps as approximately following the limits of any municipal corporation are to be construed as following these limits. Boundaries shown as following or approximately following section lines, half or quarter section lines shall be construed as following such lines.

Boundaries shown as following or approximately following the centerline of streams, creeks, rivers, or other continuously or intermittently flowing streams or creeks are to be construed as following the channel centerline of these water courses taken at mean low water, and, in the event of natural change in the location of such streams or other water courses, the zone boundary is to be construed as moving with the channel centerline.

Where a land use category applied to a parcel is not mapped to include an adjacent street or alley, the category shall be considered to extend to the centerline of the right of way. Boundaries shown as separated from, parallel, or approximately parallel to any of the features listed above shall be construed to be parallel to such features and at such distances therefrom as are shown on the map. Symbols that indicate appropriate locations for proposed public facilities are not property-specific. Rather, they indicate only the general area within which a specific facility should be established.

CEQA Review of Consistency

State CEQA Guidelines require that an initial study prepared for an environmental assessment include "an examination of whether the project is compatible with existing zoning and plans." The CEQA Guidelines further stipulate that, "A project will normally have a significant effect on the environment if it will conflict with adopted environmental plans and goals of the community where it is located." If a determination is made by the Planning Commission or the City Council that the proposed action is inconsistent with the General Plan, no further action shall be taken without the completion and processing of an EIR or other detailed analysis which would support a finding of overriding consideration.

Zoning Consistency

California law also mandates that the City's Zoning Ordinance be consistent with the General Plan. In the event that the Zoning Ordinance becomes inconsistent with the General Plan by reason of a General Plan Amendment, the Zoning Ordinance must be amended within a reasonable time so that it is made consistent with the General Plan, as amended. The Zoning Ordinance cannot be amended if it causes an inconsistency with the General Plan.

Amending The General Plan

Although the Comprehensive General Plan is developed with a long-term perspective, it is not a static document, but rather is dynamic, evolving and multi-faceted, continuously defining and addressing the changing needs of the community. It is also based on an ongoing assessment and understanding of existing and projected community needs. To assure that the General Plan is kept current, short-term programs and policies may be reviewed annually to reflect compatibility with budgetary priorities and the status of related programs. Long-term programs and implementation measures must also be given forward planning consideration to assure timely funding and development of critical infrastructure, and public services and facilities.

Mandatory elements of the General Plan may be amended up to four (4) times in each calendar year. The City Council or any citizen may initiate a General Plan Amendment. It is left to the discretion of the local jurisdiction to establish an amendment schedule to be published one year in advance.

Application Procedures

Applications for the amendment of the General Plan and the appropriate fees are filed with the City Community Development Department. An amendment to the General Plan constitutes a project under the California Environmental Quality Act (CEQA), and therefore is evaluated for its environmental effects and consistency with other elements of the General Plan. Final approval of General Plan amendments is the responsibility of the City Council.

Exemptions

The State Legislature has recognized that occasions arise which require the local jurisdiction to have some flexibility in amending the General Plan. As set forth in the California Government Code, the following are exempt from the General Plan amendment schedule.

- (1) Amendments requested and determined necessary for the development of a residential project, of which at least twenty-five percent (25%) of its units will be available to persons of low or moderate income (Sections 65361(b) and 65358(d)).
- (2) Any amendment necessary to comply with a court decision in a case involving the legal adequacy of the General Plan (Sections 65361 and 65358 (d) (1)).

Annual Review

California Government Code requires that the planning agency "render an annual report to the legislative body (City Council) on the status of the Plan and the progress in its implementation" (Section 65400(b)). State law further requires that the Housing Element be reviewed and updated at least once every five (5) years.

Specific Plans

Focused and area-specific community plans are provided for in State law through the development and processing of a Specific Plan of Land Use. Specific Plans play an important role as refined versions of the General Plan, applicable to a specific portion of the community. Specific Plans often provide detailed design and analysis of complex mixed-use projects, and indicate precise land use locations and designs. Specific Plans contain text, exhibits, and diagrams indicating the distribution, location, and intensity of proposed land uses and the necessary public and private urban support systems, including streets, utilities and drainage facilities.

Standards and criteria by which development and, where applicable, conservation will proceed on the property are also defined in the Specific Plan. Additionally, a Specific Plan provides a program of implementation measures and financing necessary to carry out the project. It must also be consistent with all facets of the General Plan and, in turn, zoning, subdivision, and public works projects must be consistent with an existing Specific Plan (Government Code Section 65455).

Specific Plans are prepared, adopted and amended in the same manner as a General Plan, may be adopted by resolution or ordinance, and may be amended as often as deemed necessary by the City Council. In most cases, development proposals within areas for which a Specific Plan has been prepared cannot proceed until it is determined that the project is consistent with the Specific Plan and the General Plan.

In areas where the Specific Plan encompasses more than one property, the plan must be completed and adopted prior to development on any affected property. Specific Plans may be prepared either by the applicant or the City. Should the City prepare the Specific Plan, it is entitled to reimbursement by affected property owners pursuant to Section 65456 of the California Government Code.

Capital Facilities

Among the statutory responsibilities of California, incorporated towns, cities and counties is to “annually review the capital improvement program of the city or county and the local public works projects of other local agencies for their consistency with the General Plan.” Also, pursuant to Government code Section 65401, all departments within the City and all other local government agencies must submit a list of proposed projects to the City. The City is responsible for reviewing these projects for conformity with the General Plan.

Implementation of the General Plan

California Government Code Section 65103(c) requires that local jurisdictions implement the General Plan once it has been adopted. The Palm Desert Comprehensive General Plan relies on element programs and implementation strategies, as well as the related mitigation measures and programs set forth in the General Plan Program EIR, to serve as implementation measures. The City Zoning and Subdivision Ordinances also play critical roles in implementing the goals and policies of the Plan, and Specific Plans provide detailed implementation programs for specific portions of the General Plan area.

Implementation Through the Zoning Ordinance

The development and enforcement of the City Zoning Ordinance is an exercise of police powers granted to the City by the State, and is the primary tool for implementing the General Plan. The Zoning Ordinance regulates land use by distinct development zones and permitted uses. Text, maps, diagrams and other materials describe the distribution and intensity of land uses into such categories as residential, commercial and industrial uses.

Written regulations establish minimum development standards for each of the land use zones in a manner consistent with the General Plan. Permitting processes set forth in the Zoning Ordinance, including Conditional Use Permits, Variances, Architectural Reviews and other land use permitting, also implement the General Plan. The implementation of the General Plan is further regulated by Government Code Sections 65800 et. seq.

Implementation Through the Subdivision Ordinance

Like Zoning Ordinances, subdivision regulation is also an exercise of police powers and a principal instrument for implementing the General Plan. Establishing state-wide uniformity in local subdivision procedures, the State Subdivision Map Act (Government Code Sections 66410 et seq.) leaves the standards for regulating the design and improvement of subdivision to local government.

The broadest authority for regulating subdivisions lies in Government Code Sections 66473.5, 66474, 66474.60, and 66474.61, requiring findings that, among other things, the subdivision is consistent with the City General Plan and any applicable Specific Plan.

Development Agreements

Development agreements have become an important adjunct to development plan processing and approval. State law provides for the adoption of development agreements between a project proponent and the City, in accordance with Government Code Section 65865 et seq. The purpose of development agreements is to provide developers with additional assurances that development approvals will not be nullified by some future local policy or regulation change. In exchange, the developer may be required to meet certain conditions or performance criteria, which become part of the agreement.

Development agreements can be a useful means of meeting General Plan goals and policies, while removing some of the risks faced by developers. Agreements can remain in effect for a few or several years, the term typically being set forth in the agreement.

It is important to emphasize that, as set forth in Government Code Section 65866, the City, unless otherwise provided by the development agreement, is not prevented from applying new rules, regulations, and policies which do not conflict with those rules, regulations, and policies applicable to that property. Neither is the City prevented from denying or conditionally approving any subsequent development application on the basis of such existing or new rules, regulations or policies.

Commissions and Committees

All levels of government institute committees and commissions to facilitate the local review of community development projects. The City is empowered to establish advisory commissions or committees, which may be comprised of public officials as well as private individuals, to review and make recommendations on policies or programs facilitating implementation of the General Plan.

Commissions and committees typically address such issue areas as parks and recreation, trails, libraries, public safety, community and architectural design, affordable housing and emergency preparedness. The City Council may establish commissions or committees to address specific and focused issues, or to provide recommendations on an ongoing basis. The Council may perpetuate or dissolve these commissions or committees as it sees fit.

FUTURE DIRECTIONS

The Administration Element is essential to the effective enactment of the General Plan. The Plan relies on the development and maintenance of City regulatory documents, including the Zoning Ordinance, Specific Plan requirements, the Subdivision Ordinance, and City Rules for the Implementation of CEQA. The General Plan itself is a living document with mandates for frequent review and refinement. Amendments to the Plan should be given careful consideration and not be granted casually. The goal, policies, programs and implementation strategies of the Element will help to assure the effective administration and implementation of all elements of the Palm Desert Comprehensive General Plan.

GOAL, POLICIES AND PROGRAMS

Goal

The comprehensive, coordinated and integrated administration and implementation of all elements of the Palm Desert General Plan through consistent and effective policies and programs.

Policy 1

Provide for the periodic revision and updating of the General Plan and ensure that associated City ordinances, including the Zoning and Subdivision Ordinances, are maintained in conformance with the General Plan.

Program 1.A

The City Council shall, through the public hearing process, receive an annual report from the Planning Commission on the status of the General Plan and shall make recommendations which address identified inadequacies or opportunities for updating the Plan.

Responsible Agency: City Council; Planning Commission; Community Development Department

Schedule: Annually.

Program 1.B

The City shall comprehensively review and amend, as necessary, the Zoning and Subdivision Ordinances to maintain consistency with the Comprehensive General Plan.

Responsible Agency: Community Development Department; Planning Commission; City Council

Schedule: Annually

Policy 2

The City shall provide for the use of Specific Plans as a preferred method of detailed and systematic implementation of the Comprehensive General Plan.

Program 2.A

Maintain application materials and guidelines for the preparation of Specific Plans and encourage their use for large and/or complex residential, commercial or industrial projects of forty acres or larger and on lands contemplated for annexation into the City.

Responsible Agency: Community Development Department

Schedule: Ongoing

Policy 3

On a periodic and on-going basis, the City shall examine and review the long- term implications of Comprehensive General Plan policies and programs as they relate to the City's ability to provide public services and facilities.

Program 3.A

The annual review of the Comprehensive General Plan, as set forth in Program 1.A, above, shall include a report on interrelationships, impacts or enhancements of the Comprehensive General Plan with regard to the City's ability to fund public services or secure public facilities.

Responsible Agency: City Council; Planning Commission; Community Development Department

Schedule: Annually.

Policy 4

The City shall establish and maintain a cooperative planning process with Riverside County, assuring an effective advisory role regarding any and all development and other land use planning issues or proposals within or in close proximity to the City's Sphere-of-Influence.

Program 4.A

Effectively coordinate and cooperate with Riverside County to review all proposed land use and other development proposals, recognize the City's advisory role, and request that the County forward copies of all development plans proposed within the advisory area to the City for review and comment.

Responsible Agency: City Council; Community Development Department; City Attorney

Schedule: Continuous.

Policy 5

The City shall assure that properly filed development applications shall be processed in an expeditious and timely manner.

Program 5.A

The City shall maintain application processing procedures that assure expeditious and timely processing of land development applications, including "fast tracking" procedures for priority development proposals.

Responsible Agency: City Council; Planning Commission; Community Development Department

Schedule: Continuous.

Policy 6

Master facility and similar plans shall be utilized by the City to address the recreation, drainage/flood control, infrastructure, utility management, traffic control, and other facility needs of the community.

Program 6.A

The City shall develop and maintain master facility plans to establish need and availability of funding for additional public services and facilities. Master plans should also include schedules for phased implementation, which shall be incorporated into the City's capital improvement programs.

Responsible Agency: City Council; Public Works Department; Community Development Department

Schedule: 2003-04; as required by development.

Policy 7

The City shall encourage in-fill development within already urbanized areas of the corporate boundaries of the City, and expansion of new development shall be logically phased and, as appropriate, guided by the development of existing and new Specific Plans.

Policy 8

City shall provide opportunities for review and comment on development proposals through public hearing notices sent to owners of property located at least within 300 feet of development proposal sites.

Policy 9

City projects shall comply with the same policies, procedures and regulations required of the private sector.

Policy 10

The City shall continuously explore and take every opportunity to work with other public and quasi-public entities in the development of cooperative public/private ventures and partnerships to better provide public services and facilities that benefit the community.

CITY OF PALM DESERT

COMPREHENSIVE GENERAL PLAN

CHAPTER III

ENVIRONMENTAL RESOURCES

The Community Development chapter includes the following elements: Land Use, Circulation, Housing, Parks and Recreation, Community Design, and Economic and Fiscal Development. This chapter significantly influences the character and quality of life in the community, the distribution of land uses, the intensity and types of housing, the provision of parks and recreational facilities, the establishment of architectural and community design guidelines, the preservation of scenic vistas, and the preservation and enhancement of a healthy economy.

LAND USE ELEMENT

PURPOSE

The General Plan Land Use Element is the most direct and consequential of all elements. It directly responds to the legal mandate for the regulation of land use, establishes and describes the designations for each land use category, and sets forth general and type-specific goals, policies and programs that guide land use in the community. The accompanying Land Use map shows the general allocation and distribution of land uses throughout the City and the General Plan planning area.

The Element also serves as a statement of standards elaborated elsewhere in the General Plan, and establishes expectations for residential population density and building intensity. The Land Use Element also identifies areas planned for commercial, institutional, industrial and open space uses, and areas of existing and planned public and quasi-public uses. It is the broadest of the elements and is ideally the basis for and the product of coherent land use policy development. The purpose of the Land Use Element is to provide sufficient land for all the needs of the community, while preserving the environment and the quality of life.

BACKGROUND

The Land Use Element is the central focus of the General Plan, incorporating all of the values and principles of community and land use planning. These have been applied to the drafting and adoption of a comprehensive, long-term General Plan for the physical development of the City. The process of developing the land use plan involves the analysis of existing land use patterns, current and future available public services and facilities, and consideration of the physical and environmental constraints and opportunities on development.

The importance of this element is made clear in Government Code Section 65300, which requires that every city and county prepare and adopt “a comprehensive, long-term general plan for the physical development” of the community. The City General Plan is further required to provide a land use element that designates lands for housing, business, industry, open space, as well as other uses deemed appropriate by the City (Government Code Sections 65302(a) and 65303). Although all the General Plan Elements are important, the Land Use Element is generally considered to be the most representative of and essential to the General Plan. In practice, the Land Use Element is of the broadest scope and the most widely used in the General Plan, with goals, policies and programs set forth to guide and direct the physical development of the community.

Essentially all other components of the General Plan are directly or indirectly most affected by the Land Use Element. One of the most closely related is the Circulation Element, which is directly affected by and in turn has a constraining effect upon the viability of the Land Use Element. The General Plan Guidelines and case law require a close and logical correspondence between these two elements.

The location and intensity of the various land uses established by the General Plan have the direct consequence of generating traffic and affecting the capacity of local and regional roads. Resulting traffic also affects accessibility for pedestrians and bicyclers, and results in noise that can have an adverse impact on adjoining land uses. Therefore, the selection of the type, intensity and location of land uses has a profound effect on the movement of all forms of transportation.

Other elements with strong dependence or influence upon the Land Use Element and its land allocation model include Housing, Community Design, Economic Development, as well as those elements reflecting recognition of environmental hazards and resources of the community. Policies and programs associated with each of the major land use categories are set forth in the Land Use Element and reflect the compatible and integrally planned distribution of land uses reflected in the Plan.

Land Use, Land Conservation and Quality of Life

As discussed in the Community Design Element and elsewhere in the General Plan, there is an intimate relationship between land use planning, land conservation and the quality of life enjoyed by a community. In consideration of land conservation values for purposes of preservation of open space and protection of important natural resources, the planning process is appropriately directed to the efficient planning of lands for urban uses. This implies the establishment and preservation of a logical, contiguous and efficient urban pattern that optimizes land use interactivity and the use of public infrastructure. Applying this principle results in increased land use efficiencies and the preservation of local and regional open space for public use and wildlife conservation. Within the City planning area, lands in the foothills and mountains and north of Interstate-10 constitute important conservation lands that benefit local residents and the local economies.

Types of Land Uses

The adopted Land Use Element and accompanying official Land Use Map describe and designate the distribution of land uses by type, location, intensity and/or extent of use. Land uses provided for in the General Plan are diverse, with a full range residential, commercial and institutional uses, limited business park/industrial, open space, recreation, public buildings and facilities, and other categories of public and private land use.

Planning Area Land Use in 2002

Prior to the adoption of the Palm Desert General Plan comprehensive update, the City utilized the land use designations and assignments last adopted in the 1994 amendment to the Land Use Element. In the current (2002) update, a comprehensive assessment of existing land uses and their distribution was conducted using field surveys, aerial photo analysis and a comprehensive Graphic Information System (GIS) computer mapping system. Based upon this analysis, a revised land use model was developed by the City General Plan Advisory Committee (GPAC). Table III-1 provides a summary description of the City's General Plan land use designations and Table III-2 provides the statistical summary of these land uses. Following the tables, overarching land use goals, policies and programs are presented. In addition, a discussion of each major land use category is presented followed by related goals, policies and programs.

Role of the Element

The development of a community Land Use Element requires the broadest consideration of the issues addressed in all the other General Plan Elements. It clarifies and addresses most of the concerns of the community's development and plays an essential role in synthesizing all land use issues.

Abbreviations and Symbols

Abbreviations of land use codes are comprised of letters that summarize the land use and its range of potential intensity. It also uses these codes to define individual sub-uses within a given land use category, such as Open Space and Public/Quasi-Public categories.

Table III-1
General Plan Land Use Designations

Land Use Designation (Density)	Purpose of Land Use
RESIDENTIAL	
(R-DE) Desert Estates (0-1 du/10 ac)	This designation provides for single-family residential development on lots a minimum of ten acres. The <i>Desert Estate</i> land use provides a development density intermediate between more typical open space/conservation lands and low residential densities, providing lots sufficient for rural and estate lifestyle yet with room to limit site and environmental impacts. This designation applies primarily to lands in the Sky Valley area.
(R-ME) Mountain Estates (0-1 du/20 ac)	This designation provides for single-family residential development on lots 20 acres or greater in size. The <i>Mountain Estates</i> designation recognizes the added constraints of steep terrain on site development and extension of access and services. It provides an intermediate step in development density between open space/conservation lands and low residential densities, providing lots sufficient for rural and estate lifestyle, while limiting site and environmental impacts.
(R-HR) Residential Hillside Reserve (0-1 du/5ac)	The <i>Residential Hillside Reserve</i> designation serves to provide an intermediate development density for lands located on sloping terrain primarily within the foothills of the Santa Rosa Mountains. The designation permits the development of one single family home on lots of not less than five acres. The intent is to provide reasonable development opportunities while protecting natural and scenic resources.
(R-L) Low Density Residential (0-4 du/ac)	This low density designation provides for single-family residential development. These lands serve to buffer more dense residential development from estate residential uses, and may be appropriate in areas with some site constraints.

The R-L designation typically provides for low density single family subdivisions and Planned Residential Developments (PRDs), which may include golf course-oriented resort developments. It serves to transition between lowest residential densities and more moderate densities described below.

Planned Residential Developments (PRDs) are master planned communities, which consolidate areas for structures, common open space and recreation areas, and integrate access and private internal roadways. PRDs permit the transfer of densities from open space/recreation areas, thus preserving open space and possibly allowing development to maximize allowable densities.

The purpose of PRDs is to promote planned residential development and amenities beyond those expected under conventional development. It is also meant to provide greater flexibility in design, varying ranges in densities, and encourage well-planned neighborhoods through creative and imaginative planning. It also provides for an appropriate mix of housing types, which are unique in their physical characteristics to warrant special methods of residential development. A full range of residential development is permitted in PRDs.

(R-M) Medium Density Residential (4-10 du/ac) Appropriate residential development under this designation includes single family and PRDs with shared open space, recreation and other amenities. Condominiums, garden apartments and affordable housing may also be appropriate for these lands. The intent of this designation is to encourage development of a wide variety of dwelling unit types at moderate densities.

(R-H) High Density Residential (10-22 du/ac) This designation allows for the greatest diversity of residential development, including attached single and multi-family dwellings. This designation is most suitable for planned communities, and for affordable

and senior housing, where smaller units and higher densities may be appropriate. Duplex and multiplex development is most common and provides for PRD's with a varied range of residential types, including apartments and condominiums. Mobilehome parks or subdivisions with PRD type development may also allowed with the approval of a Conditional Use Permit. Density bonuses may be available, on a case-by-case basis, for approved affordable housing projects.

COMMERCIAL

(C-C) Community Commercial

The *Community Commercial* designation allows for a wide range of services and sizes of developments for a substantial portion of the community, with shopping centers typically located on major streets but within convenient driving distance to residential areas. Development may range from free-standing retail buildings, offices and restaurants, to planned commercial centers. Services range from convenience stores and specialty retail shops, to a broad range of clothing and apparel, jewelry stores and a variety of personal service businesses. Office development is also permitted as a secondary use.

Larger Community Commercial developments are typically anchored by supermarkets and superdrug stores. A wide range of other uses, including financial and professional offices, personal care business, restaurants, service station and other community-serving services are commonly found in these planned centers. Hotels and motels may also be appropriate on these lands. Community commercial planning areas typically range in size up to 15 acres and provide up to 150,000 square feet of gross leasable floor area. Mixed use development with professional office and residential may also be permitted through approval of an integrated master plan.

(C-R) Regional Commercial

The *Regional Commercial* designation provides for larger scale, integrated shopping centers and malls, which may be anchored by several department stores or other large-scale anchors, including "big-box" retailers, a variety of retail outlets, and restaurant and entertainment uses. Hotels and motels may also be appropriate on these lands. Office development may also be an integral part of these developments. Typical sizes range between 200,000 and 800,000 square feet or more of gross leasable floor area. This type of development can also be facilitated through the preparation of a Specific Plan. Mixed use development with professional office and residential may also be permitted through approval of such an integrated master plan.

(C-OP) Office Professional

The *Office Professional* designation is assigned to lands that provide comparative advantages for office development, with use characteristics that enhance compatibility with residential and other sensitive land uses. Professional office lands serve as effective buffer or transitional uses between commercial and residential neighborhoods, and provides convenient professional services to surrounding residents and businesses. Office use is appropriate along arterial roadways, integrated with commercial development, and as stand-alone business parks. Adjoining office-serving parking may also be developed on adjacent residential lands, consistent with thoughtful design practices. Mixed use development with hotels and motels, professional office and residential may also be permitted through approval of an integrated master plan.

(C-R/H) Resort Commercial

The *Resort/Hotel Commercial* designation is assigned to lands planned for or already developed as resort uses, including hotels and associated uses, timeshare projects, and associated recreation and open space amenities, including golf courses, tennis

courts, and pools and spas. These lands uses are geared to the visiting tourist public and also provide important venues for community meetings and events. Mixed use development with professional office and residential may also be permitted through approval of an integrated master plan.

(C-MU) Commercial-Mixed Use

This land use designation provides for a mix of uses, including those identified in any of the commercial land use designations, as well as professional offices, institutional and medium or high density residential, with residential uses subject to the criteria set forth in the High Density Overlay designation. This designation is applied to lands that will have benefited from approval of a master development plan or Specific Plan. The mixed use development is intended as a highly integrated master plan that optimizes complementary land uses and distributions, internal non-vehicular access, and low traffic volumes within residential areas of the master plan. Commercial mixed use developments will vary in size and are discretionary approvals.

INDUSTRIAL

(B-P) Business Park

The *Business Park* designation provides for a flexible mix of office, service commercial, wholesaling and light manufacturing uses ranging from professional and medical offices to copy and printing shops, business and office supply stores, and paint and tile and cabinet shops, and similar uses. Limited retail sales, including restaurants, geared primarily toward park businesses may also be appropriate. Mixed use development with professional office, hotels and residential may also be permitted through approval of an integrated master plan.

(I-L) Light Industrial

The *Light Industrial* designation provides for a variety of light industrial uses operating primarily in enclosed buildings, and those requiring limited and screenable

outdoor storage. Examples include clean manufacturing operations, warehousing and distribution facilities, mini-warehouse storage, and a variety of light manufacturing businesses. Siting industrial lands in close proximity to major regional highways is also desirable. Preferred development includes master planned industrial parks with integrated access and internal circulation.

GENERAL PLAN OVERLAY DESIGNATIONS

Special Study Areas (SSA)

The General Plan land Use map includes the use of suffixes, which clarify or qualify a designation. The SSA suffix is assigned to properties that, while assigned a specific designation on the General Plan Land Use Map, are subject to "special" or "focused" land use analysis. These properties may be required to provide a higher level of engineering and/or design analysis, or may be required to demonstrate compatibility with important environmental standards.

High Density Overlay (HDO)

The "High Density Overlay" allows development of R-H (High Density Residential, 10-22 du/ac) on any R-M lands within the University Park planning area, subject to development standards/criteria set for in this element. Criteria include the percentage mix of residential product types and rental versus ownership units and affordability, proximity and access to employment, commercial services, schools and parks, open space amenities, design quality, and potential fiscal impacts.

INSTITUTIONAL SERVICES AND FACILITIES

(PF) Public/Quasi-Public

As noted in this element and on the Land Use Map, the *Public/Quasi-Public* designation is assigned to City Hall and the Civic Center, other City and governmental offices, libraries, schools, hospitals, floodways, police and fire stations, utility substations, as well as other public/quasi-public administrative offices.

Institutional Symbols

(PF/CC)	Civic Center
(PF/FS) Fire Station	Fire Station
(PF/PS) Police Station	Police Station
(PF/H) Hospital/Medical	Hospitals and similar in/out-patient medical services. Also may be assigned to convalescent and skilled nursing facilities.
(PF/S)	Designates educational facilities such as day care, elementary, intermediate, high schools, special schools and technical schools, and colleges and universities.
(PF/L)	Libraries
(PF/PO)	Post Offices
(PF/U)	University or College
(PF/PU)	Public Utility Substation- designates electric, gas, telephone, water and other similar facilities.

OPEN SPACE

(OS) Open Space	The OS designation is assigned to those lands determined to be a special, important or valuable natural resource that warrants protection. The designation is assigned to such lands as parks, which carry a designation of (OS/PP); golf courses are defined as private open space with a designation of OS/PV. Mountainous and desert areas under public or quasi-public ownership are assigned the designation of Public Reserve (OS/PR). The designation allows the discretionary approval of trails, trailheads and associated facilities, but does not allow vehicular access. The Open Space designation may also be used to define special resource areas or those that may pose threats or hazards to
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development. Lands important for their recreational, biological, or regional economic value may also be assigned an open space designation. Examples of resource lands and hazards include ground rupture or liquefaction hazard areas, detention and retention basins, trails, estuaries and large habitat areas for sensitive biological resources.

(OS/PP)

Public Parks

(OS/PR)

Public Reserve Open Space

(OS/PV)

Private Open Space

(OS/FW)

Floodways

Community Scale and the Urban Environment

The City's approach to land planning and community development has resulted in a scale and sensitivity of development that has proven highly desirable. The region's natural environment has made the City and the Coachella Valley an especially attractive place to live and raise a family. It has also enhanced the region's role as a world renowned resort and tourist destination. Current and planned development on the scale of "urban villages" have and will continue to preserve the natural features of the desert and mountains, which have attracted residents and visitors from all socio-economic sectors.

The scale of development in the City, the preservation of surrounding natural environment and its integration into the built environment, have created a unique character, identity and a haven that provides relief from the more intense and congested urban areas from which many new residents and visitors come. Two-thirds of the region's new residents and visitors come from the Los Angeles area, where urban sprawl, traffic congestion and a host of associated conditions have created a market for those seeking the unique, human scale of the City and its built environment.

Table III-2
Land Use Buildout Statistical Summary (City Limits)

GENERAL PLAN 2000 LAND USE DESIGNATION	Developed		Developed Units	Vacant Acres	Potential Bldg Sq Ft (Vacant Lands)	Range of Potential Residential Units (Vacant Lands)	Total Acres	Developed		Vacant %	Total %
	Acres	Bldg Sq Ft						% Acres	Acres		
Residential Land Use Designations											
Residential, Mountain Estates (R-ME) 0-1 du/20 ac	-		-	-	-	-	-	0%		0%	0%
Residential, Desert Estates (R-DE) 0-1 du/10 ac	-		-	-	-	-	-	0%		0%	0%
Residential, Hillside Reserve (R-HR) 0-1 du/5 ac	81		16	462		92 to 92	543	1%		43%	6%
Residential, Low Density (R-L) 0-4 du/ac	7,294		21,883	257		771 to 771	7,552	84%		24%	77%
Residential, Medium Density (R-M) 4-10 du/ac	1,086		8,146	35		262 to 262	1,121	12%		3%	11%
Residential, Medium Density/High Density Overlay (R-M/R-HO)	-		-	288		2,162 to 4,757	288	0%		27%	3%
Residential, High Density (R-H) 10-22 du/ac	261		4,696	4		68 to 68	265	3%		0%	3%
Mixed Use (MU) - Commercial/ High Density (R-H) 10-22 du/ac	-		-	20		360 to 360	20	0%		2%	0%
Study Zone (S)	-		-	12		36 to 36	12	0%		1%	0%
TOTAL RESIDENTIAL	8,722		34,741	1,078		3,752 to 6,347	9,801	100%		100%	100%
Commercial Land Use Designations											
Commercial, Community (C-C)	220	2,394,711		75	815,661		295	18%		14%	17%
Mixed Use (MU) - Commercial/ High Density (R-H) 10-22 du/ac	-	-		20	217,800		20	0%		4%	1%
Commercial, Office Professional (C-OP)	71	767,745		23	251,559		94	6%		4%	5%
Commercial, Office Professional/Residential, Medium Density	3	31,581		-	-		3	0%		0%	0%
Commercial, Office Professional/Residential, High Density	22	235,224		2	26,136		24	2%		0%	1%
Commercial, Regional (C-R)	240	2,616,867		232	2,521,035		472	20%		45%	27%
Commercial, Resort/Hotel (C-R/H)	667	7,262,541		165	1,794,672		832	55%		32%	48%

Table III-2
Land Use Buildout Statistical Summary (City Limits) (continued)

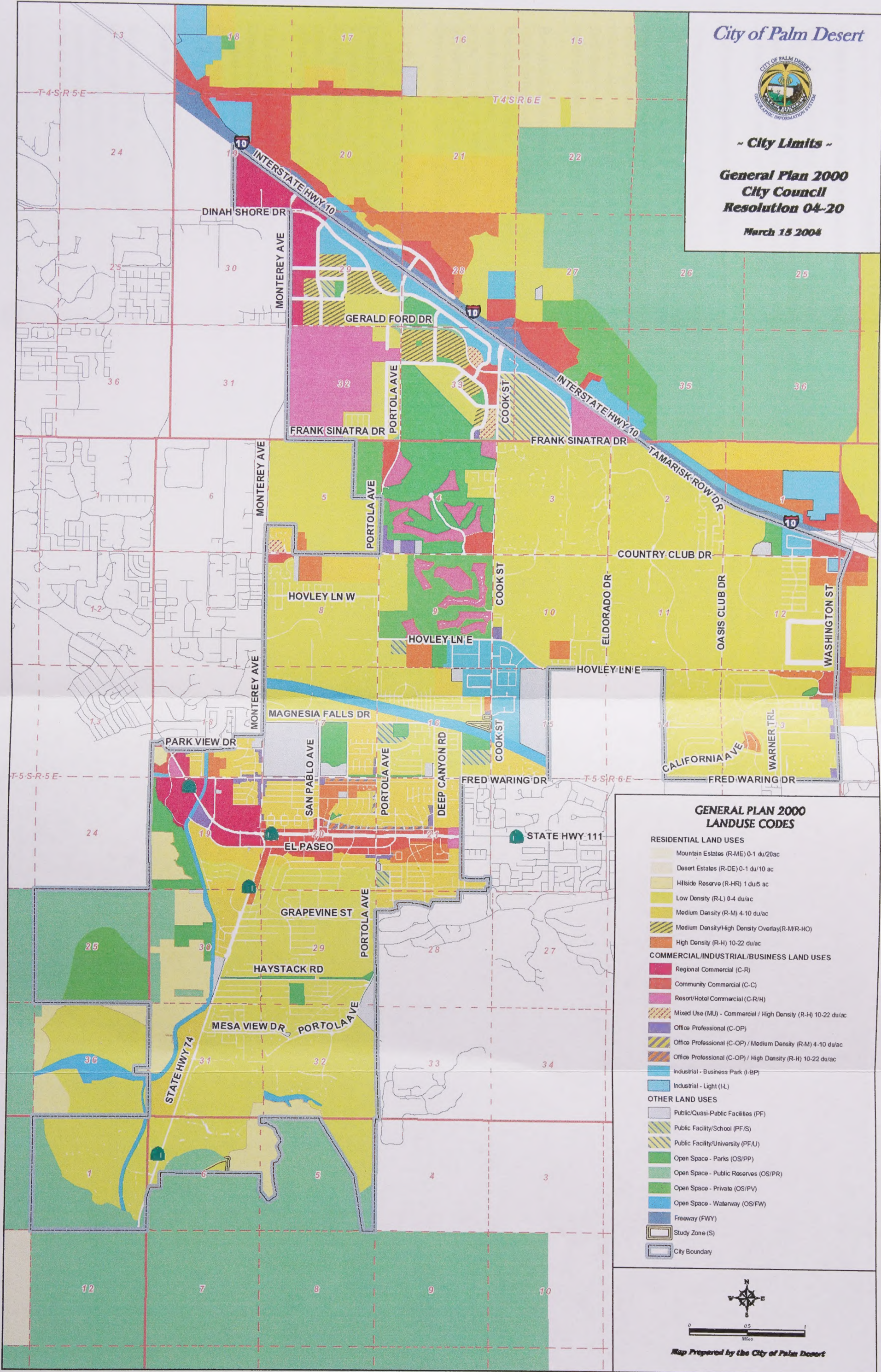
TOTAL COMMERCIAL	1,222	13,308,669	517	5,626,863	1,739	100%	100%	100%
<i>Industrial Land Use Designations</i>								
Industrial, Business Park (I-BP)	222	2,415,402	293	3,189,681	515	96%	100%	98%
Industrial, Light (I-L)	10	104,544	-	-	10	4%	0%	2%
TOTAL INDUSTRIAL	231	2,519,946	293	3,189,681	524	100%	100%	100%
<i>Open Space Land Use Designations</i>								
Open Space, Parks (OS/PP)	911		-		911	35%	0%	35%
Open Space, Private (OS/PV)	578		-		578	22%	0%	22%
Open Space, Public Reserves (OS/PR)	844		-		844	33%	0%	33%
Open Space, Waterway (OS/FW)	238		-		238	9%	0%	9%
TOTAL OPEN SPACE	2,572		-		2,572	100%	0%	100%
<i>Public/Quasi-Public Land Use Designations</i>								
Public Facility/School (PF/S)	59		15		74	9%	0%	11%
Public Facility/University (PF/U)	192		-		192	30%	0%	29%
Public/Quasi-Public Facilities (PF)	385		1		386	61%	0%	59%
TOTAL PUBLIC/QUASI-PUBLIC	636		16		653	100%	0%	100%
Roads	1,955		-		1,955			
TOTAL CITY	15,339	15,828,615	34,741	1,904	8,816,544	-	-	17,243 89% 11%



~ City Limits ~

General Plan 2000
City Council
Resolution 04-20

March 15 2004



GENERAL PLAN 2000
LANDUSE CODES

- RESIDENTIAL LAND USES**
- Mountain Estates (R-ME) 0-1 du/20ac
 - Desert Estates (R-DE) 0-1 du/10 ac
 - Hillside Reserve (R-HR) 1 du/5 ac
 - Low Density (R-L) 0-4 du/ac
 - Medium Density (R-M) 4-10 du/ac
 - Medium Density/High Density Overlay (R-MR-HO)
 - High Density (R-H) 10-22 du/ac
- COMMERCIAL/INDUSTRIAL/BUSINESS LAND USES**
- Regional Commercial (C-R)
 - Community Commercial (C-C)
 - Resort/Hotel Commercial (C-R/H)
 - Mixed Use (MU) - Commercial / High Density (R-H) 10-22 du/ac
 - Office Professional (C-OP)
 - Office Professional (C-OP) / Medium Density (R-M) 4-10 du/ac
 - Office Professional (C-OP) / High Density (R-H) 10-22 du/ac
 - Industrial - Business Park (I-BP)
 - Industrial - Light (I-L)
- OTHER LAND USES**
- Public/Quasi-Public Facilities (PF)
 - Public Facility/School (PF/S)
 - Public Facility/University (PF/U)
 - Open Space - Parks (OS/PP)
 - Open Space - Public Reserves (OS/PR)
 - Open Space - Private (OS/PV)
 - Open Space - Waterway (OS/FW)
 - Freeway (FWY)
 - Study Zone (S)
 - City Boundary



0 0.5 1
Miles

Map Prepared by the City of Palm Desert

SUMMARY OF EXISTING LAND USE

The City General Plan study area is comprised of incorporated lands, lands within the City's official Sphere-of-Influence (SOI) and other lands contiguous to the corporate or SOI limits. SOI lands occur primarily in the Bermuda Dunes area, and also include Sun City and lands south of Avenue 38 and north of US Interstate-10.

Residential Development Within the City

Urban development in the City has evolved initially from and along State Highway 111, an early Native American Trail and later the 19th Century Bradshaw Trail (See Cultural Resources Element). Homes, hotels and resorts developed a short distance north and south the SR 111 commercial corridor. The evolution from a traditional urban village pattern to one including more expansive master planned communities has occurred over a five decade period. Large-scale tourist and residential resort development has reinforced demand for golf and associated facilities, which now comprise a major part of the City's developed lands. The community also values its natural lands and recognizes these as important, if not essential, "land uses".

Residential development in the southern-most portions of the City includes high-end gated communities such as Bighorn, Canyons at Bighorn, Ironwood County Club and the Reserve. Residential lands south of Highway 111 have developed to provide apartments and condominiums, with extensive conventional single family neighborhoods also occurring in this area. North of Highway 111 and generally south of the Whitewater River, residential development includes moderately priced single family, multi-family and mobilehome development. This area includes the Palma Village planning area.

North of the Whitewater River, residential development is dominated by gated and golf course-oriented planned developments, including Chaparral Country Club, Monterey Country Club, Desert Fall Country Club, The Lakes Country Club, and other planned residential developments. Timeshare development has also occurred in this area in association with the Marriott Desert Springs Resorts and Shadow Mountain developments, as well as within the City's Desert Willow planning area. Conventional single-family homes have developed along Hovley Lane and affordable single and multi-family development has also occurred in this area.

The annexation of land west of Washington Street has brought such developments as Palm Desert Resorter and Whitehawk into the City. The Palm Desert Country Club neighborhood located north of Fred Waring Drive is a hybrid development that provides a mix of golf-oriented single family development in a conventional subdivision, and also includes limited multi-family development.

Commercial and Business Park Development Within the City

With the shift in socio-economic and demographic trends in the Coachella Valley, and the natural constraints on urbanization placed by geography, Palm Desert is located in the center of urban development in the valley. This natural, comparative advantage was first exploited by commercial development along Highway 111 and also included the development of the El Paseo commercial corridor, which has emerged as the "Rodeo Drive" of the Coachella Valley.

The City's position as the commercial center of the valley was firmly established with the development of the Palm Desert Town Center retail shopping mall by Ernie Hahn in the early 1980s. Since that time, commercial land uses have flourished in this area and have expanded to capture a major part of the regional retail market. Commercial land use has spread to other key locations within the City's roadway network, including lands near the US Interstate-10 interchanges.

The City's business park development area, which has also provided service commercial and light industrial uses, is located primarily along the Cook Street corridor, extending from the Whitewater River to Hovley Lane. Initially, this area included service commercial and light industrial uses, but has evolved into an integrated business parks supporting a wide range of business and development services.

University Park Planning Area

Most of the vacant land within the City corporate limits is comprised of small to moderate size holdings, where in-fill development has been occurring over the past two decades. Expanses of vacant land within the City and available for coordinated master planning and development are now limited primarily to the northern portions of the City in the University Park planning area. University Park extends south of the US Interstate-10/Union Pacific Railroad corridor and is bounded on the east by Cook Street, on the west by Monterey Avenue and on the south by Frank Sinatra Drive. Major influences on future development include the Palm Desert campus of the California State University, residential resort development to the south, and regional commercial development in the vicinity of the I-10 interchanges.

Palm Desert Sphere-of-Influence

In the south, the City Sphere-of-Influence includes Cahuilla Hills, Royal Carrizo and extensive areas of the Santa Rosa Mountains and foothills. Development is limited to very low density residential on large lots. The vast majority of this Sphere area is expected to remain in its natural state. The City Sphere also includes the community of Bermuda Dunes, which extends north from Fred Waring Drive to Interstate-10. This area is largely built out, with opportunities for in-fill residential and light industrial development limited to lands just south of Country Club Drive.

North of US Interstate-10, City Sphere lands include the Sun City development, industrial and service-commercial uses west of Washington Street and north of Varner Road, and other limited uses. Several hundred vacant acres are located in the SOI south of Avenue 38 and north of Varner Road. The City General Plan land use designations in this area are largely consistent with those of Riverside County, with limited exceptions along Interstate-10 and the eastern portion of Thousand Palms.

Palm Desert Planning Area

The General Plan planning area extends north of US Interstate-10 to the foothills of the Little San Bernardino Mountains and the boundary of Joshua Tree National Park. It is generally bounded on the west by Rio del Sol (Bob Hope Dr., extended) and by Adams Street (extended) on the east. In the southeastern portion of this planning area is the community of Thousand Palms, including Jack Ivey Ranch and Tri-Palms Estates.

In the northern portion of the planning area, both north and south of Dillon Road, is the very low density rural community of Sky Valley. The Coachella Preserve for the fringe-toed lizard makes up a major portion of the planning areas and extends across the Indio Hills, which are an important geographic feature of this area. The City General Plan land use designations in this area are largely consistent with those of Riverside County, with limited exceptions along Interstate-10 and the eastern portion of Thousand Palms.

Current and future development and land management in the Palm Desert Planning Area could have a profound effect on lands located within the current corporate and SOI limits. Lands along US Interstate-10 are the most visible and make the first impression on the traveling public. They also constitute an important travel corridor used by local residents every day.

City Planning Area lands are also affected by development that occurs south of I-10 and should be planned to be responsive to current and likely future conditions, including available transportation and other infrastructure, the urban land use pattern, and lands dedicated to open space and conservation due to valuable resources and environmental hazards. The City General Plan and Land Use Map address these lands and provide a coherent landscape scale plan for the area.

SPECIFIC PLANS OF LAND USE

A Specific Plan plays an important role as a refined version of the General Plan, applicable to a specific portion of the community. Specific Plans can provide objectives and policies, or they can include detailed design and analysis of complex mixed-use land use plans. They can also be used to indicate precise land use locations and designs. Depending upon their scope, Specific Plans can contain text, exhibits, and diagrams indicating the distribution, location, and intensity of land uses and the necessary public and private urban support systems, including streets, utilities and drainage facilities.

The standards and criteria by which development and, where applicable, conservation will proceed in the planning area are also defined in the Specific Plan. Additionally, a Specific Plan can also provide a program of implementation measures and financing necessary to carry it out. It must also be consistent with all facets of the General Plan and in turn, zoning, subdivision, and public works projects must be consistent with an existing Specific Plan (Government Code Section 65455).

The City currently has four Specific Plans, including “Project Area 4”; “Palma Village”; “West Hills”; and the downtown “Commercial Core”. These plans are self-contained or part of larger Redevelopment Agency project areas. These Specific Plans are considered as integral parts of the City’s General Plan and their land use plans and policies are reflected in the updated Plan.

This designation is used in conjunction with other underlying designations. It requires the development of a Specific Plan of Land Use on parcels or groups of parcels of 40 acres or more. The designation is applied as an overlay on the General Plan Land Use Map and can be added to any land use designation. It is also appropriate as a means of processing community-scale commercial and mixed use development proposals. Specific Plan boundaries, objectives and regulations may be amended from time to time to adapt to changing circumstances and opportunities.

Commercial Core Area Specific Plan

Adopted on July 23, 1987, the Commercial Core Area Specific Plan encompasses a planning area that generally includes lands fronting onto Highway 111, El Paseo and Alessandro Drive. Business owners, property owners and residents were involved in the Plan's development. It is comprised of four policy sub-areas. The overarching goal is stated early in the Plan:

"The general policy and implementation strategies contained in the Plan are designed to maximize the project area's potential for high quality economic development compatible with Palm Desert's overall community goals and self image."

The Specific Plan also recognizes the need for flexibility, citing program design and implementation as a continuing process of analysis and review and tailoring. Initial development in the planning area was along the north side of Highway 111 and spread to the south side and to El Paseo beginning in earnest in the 1960s. Traffic circulation and parking have been focus issues for the Plan, with frontage roads, rear parking at President's Plaza and along Alessandro and enhanced controlled access to and from Highway 111.

Alessandro Alley is a service road located immediately north of and parallel to Highway 111, and extending from Monterey Avenue to Las Palmas Avenue. San Marcos Drive, which extends into the residential area to the north, shall be closed to vehicular traffic, with pedestrian access to maintained. Design concepts to improve circulation, providing ancillary parking and improved land use compatibility between this service road area and adjoining residential lands are addressed through a single-loaded/90° parking configuration located along the north side of the alley. These improvements provide an effective solution, improving the service road and providing additional parking, while preserving the residential quality of the remainder lots.

The General Policies for the Commercial Core Area Specific Plan cite opportunities for the City and its Redevelopment Agency to participate through a variety of other activities and actions, which influence land use in the planning area. These include participation in the relocation or construction of off-site public improvements. The Commercial Core Specific Plan can be found in the General Plan appendices.

Palma Village Specific Plan

The Palma Village Specific Plan was adopted on June 13, 1985 and encompasses lands north of Highway 111 and generally extends from west of Monterey Avenue on the west to Deep Canyon Road on the east. Parts of the planning area include the City's first major residential village subdivision laid out in 1935. It is comprised of nine policy/program sub-areas. Today (2002), the planning area includes some of the City's heaviest traffic, includes important commercial and office uses, and provides a broad mix of residential housing.

Specific Plan policy directs the City to "take a proactive role in promoting compatible, high quality infill private development and public works consistent with the area policy criteria." Originally suffering from higher than average vacancies and property deterioration, the area has seen substantial revitalization through new investment, rehabilitation and new construction.

Specific Plan policies are directed to protect residential portions of the planning area from through-traffic, assure development that adheres to quality architectural design standards, management of non-conforming uses, and enhanced public lands along major rights-of-way. The Palm Village Specific Plan also focuses on management and segregation of area-wide and local traffic, including enhanced north/south arterial connections through this area. Public facilities are also addressed in the Plan, including the appropriate use of landscape and lighting districts, a complete sewage collection system and other infrastructure. Parks and open space, and socio-economic and housing needs are also addressed in the Palma Village Specific Plan. The Palma Village Specific Plan is located in the General Plan appendices.

West Hills Specific Plan

The West Hills Specific Plan was adopted in 1982 and encompasses lands west of Highway 74 and the Palm Valley Stormwater Channel. It is intended to supercede all previous policies relating to hillside development contained in the Palm Valley Stormwater Channel Area Specific Plan and constitutes an amendment to the General Plan. The planning area includes the coves and hillsides of the Santa Rosa Mountains, and regulates development on privately-owned (US Government subdivided) lots and larger holdings.

Commercial lands between Painter's path and Highway 111 are not affected by this Specific Plan. Land use regulation incorporated into the West Hills Specific Plan is meant to preclude and/or minimize the potential adverse impacts associated with development in foothills and hillsides. Development in the planning area is expected to remain very low density residential. The West Hills Specific plan is located in the General Plan appendices.

RDA Project Area No. 4 Specific Plan

The RDA Project Area No. 4 Specific Plan was adopted in 1997 and encompasses approximately 2,260 acres. This planning area is bounded on the east by Washington Street, on the south by Fred Waring Drive, Indian Wells and Eldorado Drive on the west. The planning area also includes approximately 200 acres of non-project area lands located south of the Union Pacific/I-10 corridor, west of Washington Street and north of Country Club Drive.

It is comprised of six policy/program sub-areas. Today (2002), the planning area includes the much traveled Washington Street, Country Club Drive and Fred Waring Drive arterial corridors. Over 50 percent of the planning area is located within seven planned residential communities. The planning area is substantially built out, with the exception of lands north of Country Club Drive and east of Tamarisk Row Drive.

The Specific Plan addresses a variety of issues, including land use compatibility, traffic and circulation, public works and infrastructure, parks and paths, and housing. The Plan sets forth options that address residential densities to be regulated through application of City Zoning. Circulation and traffic management are also addressed through a variety of policies and implementation programs. The preservation and improvement of existing housing stock, especially affordable housing, and the provision of adequate local parks, are also important objectives of the Plan. The RDA Project Area No. 4 Specific Plan is located in the General Plan appendices.

University Park Planning Area

The development of the new California State University campus on Cook Street and a branch of the University of California-Riverside Gary Anderson Graduate School of Business are acting as important catalysts for other land development ventures in the planning area. Important opportunities for commercial synergies are anticipated with the buildout of the university campus and associated facilities, as well as the planned sports arena. As discussed elsewhere, a full range of commercial development, including entertainment retailing, dining, nightclubs and other retailing are expected to develop along the Cook Street corridor and to provide the City with another dynamic commercial district supported by local residential, tourist and resort development, and the University.

The University Park planning area includes largely vacant lands, which will be affected by and can benefit from the buildout of the Palm Desert Campus of the California State University. The planning area encompasses approximately 2,075 acres located west of the eastern terminus of Gerald Ford Drive, north of Frank Sinatra Drive, east of Monterey Avenue and south of the Union Pacific/I-10 corridor. The planning area is also affected by the high-volume arterial roadways bounding and passing through the area. The General Plan Land Use Map assigns a wide range of residential, commercial, resort, business park and institutional land uses within the planning area. The following table summarizes the land use allocation model for the University Park Planning Area:

**Table III-3
University Park Land Use Plan**

Land Use Category	Acres	Average Residential/Commercial (Units & Square Footages)
Residential Low Density (1-4 du/ac)	313	938 units
Residential Med./High Den. Overlay (5-22 du/ac)	289	2,168 to 4,769* units
Mixed Use Residential (11-22 du/ac)	16	286 units
Community Commercial (C-C)	37	406,197 s.f.
Mixed Use Commercial (C-MU)	16	173,151 s.f.
Commercial Resort/Hotel (C-RS)	454	4,947,327 s.f.
Regional Commercial (C-R)	262	2,847,735 s.f.
Commercial Office Professional (C-OP)	4	43,560 s.f.
Industrial/Business Park (I-BP)	277	3,011,085 s.f.
Public Facilities/University (PF/U)	192	-----
Public Facilities/Schools (PF/S)	15	-----
Public/Quasi-Public Facilities (PF)	1	-----
Open Space/Public Parks (OS/PP)	250	-----
Open Space/Public Reserves (OS/PR)	22	-----
Totals:	2,075	3,392 to 5,993 du / 11.43 MSF

* Max. potential units with application of R-HD Overlay.

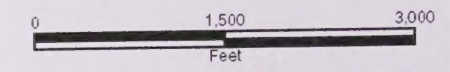
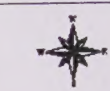
City of Palm Desert



- University Park Area -

General Plan 2000
City Council
Resolution 04-20

March 15, 2004



GENERAL PLAN 2000
LANDUSE CODES

RESIDENTIAL LAND USES

- Mountain Estates (R-ME) 0-1 du/20ac
- Desert Estates (R-DE) 0-1 du/10 ac
- Hillside Reserve (R-HR) 1 du/5 ac
- Low Density (R-L) 0-4 du/ac
- Medium Density (R-M) 4-10 du/ac
- Medium Density/High Density Overlay(R-M/R-HO)
- High Density (R-H) 10-22 du/ac

COMMERCIAL/INDUSTRIAL/BUSINESS LAND USES

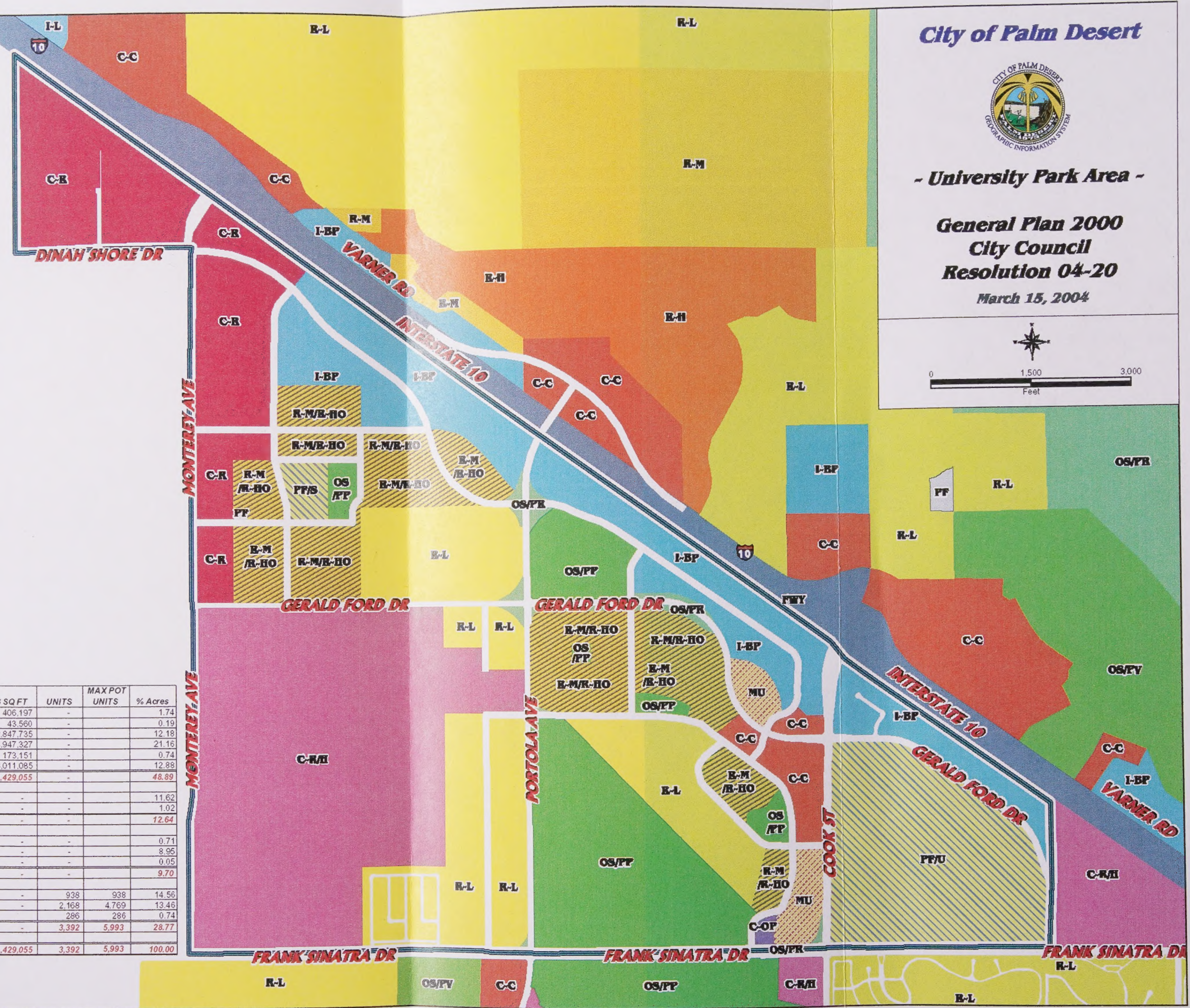
- Regional Commercial (C-R)
- Community Commercial (C-C)
- Resort/Hotel Commercial (C-R/H)
- Mixed Use (MU) - Commercial / High Density (R-H) 10-22 du/ac
- Office Professional (C-OP)
- Office Professional (C-OP) / Medium Density (R-M) 4-10 du/ac
- Office Professional (C-OP) / High Density (R-H) 10-22 du/ac
- Industrial - Business Park (I-BP)
- Industrial - Light (I-L)

OTHER LAND USES

- Public/Quasi-Public Facilities (PF)
- Public Facility/School (PF/S)
- Public Facility/University (PF/U)
- Open Space - Parks (OS/PP)
- Open Space - Public Reserves (OS/PR)
- Open Space - Private (OS/PV)
- Open Space - Waterway (OS/FW)
- Freeway (FWY)
- Study Zone (S)

University Park Area

GENERAL PLAN LANDUSE	TEXT	ACRES	BLDG SQ FT	UNITS	MAX POT UNITS	% Acres
COMMERCIAL COMMUNITY	C-C	37	406,197	-	-	1.74
COMMERCIAL OFFICE PROFESSIONAL	C-OP	4	43,560	-	-	0.19
COMMERCIAL REGIONAL	C-R	262	2,847,735	-	-	12.18
COMMERCIAL RESORT/HOTEL	C-R/H	454	4,947,327	-	-	21.16
MIXED USE COMMERCIAL	MU	16	173,151	-	-	0.74
INDUSTRIAL BUSINESS PARK	I-BP	277	3,011,085	-	-	12.88
TOTAL COMMERCIAL/INDUSTRIAL		1050	11,429,055	-	-	48.89
OPEN SPACE PARKS	OS/PP	250	-	-	-	11.62
OPEN SPACE PUBLIC RESERVES	OS/PR	22	-	-	-	1.02
TOTAL OPEN SPACE		271	-	-	-	12.64
PUBLIC FACILITY/SCHOOL	PF/S	15	-	-	-	0.71
PUBLIC FACILITY/UNIVERSITY	PF/U	192	-	-	-	8.95
PUBLIC/QUASI-PUBLIC FACILITIES	PF	1	-	-	-	0.05
TOTAL PUBLIC FACILITIES		208	-	-	-	9.70
RESIDENTIAL LOW DENSITY	R-L	313	-	938	938	14.56
RESIDENTIAL MEDIUM DENSITY/HIGH DENSITY OVERLAY	R-M/R-HO	289	-	2,168	4,769	13.46
MIXED USE RESIDENTIAL	MU	16	-	286	286	0.74
TOTAL RESIDENTIAL		618	-	3,392	5,993	28.77
TOTALS		2,147	11,429,055	3,392	5,993	100.00



University Park Land Use Planning Principles

The University Park Village plan is based upon the application of essential and highly integrated planning principles, which balance the distribution of complementary land uses with a circulation system that enhances neighborhood creation and function. Lands planned for commercial and business park development provide convenient shopping and employment opportunities, but buffer local residents from noise and traffic associated with nearby arterial roads and the Union Pacific Railroad.

Accessibility in the University Park area is enhanced by the provision of a comprehensive roadway network that also effectively segregates local from area-wide traffic. Land use synergies are also optimized with the California State University campus. Residents in the planning area will be able to live, work, shop and pursue educational and personal development opportunities without leaving the area.

Basic University Park planning issues include the following:

- Local and Area-Wide Land Use Compatibility
- Efficient and Sensitive Multi-Modal Interconnectivity
- Development Respectful of Natural Land Forms
- Balance of Land Use Intensities and Open Space

University Park "High Density Overlay"

The Univ. Park Pl area contemplates a balanced mix of low, moderate and high density housing. A "High Density Overlay" has been established for application to all medium density designations. The overall goal of this program is to provide a minimum of 4,037 dwelling units within this planning area. To assure the provision of higher density residential units, the City has adopted a residential "High Density Overlay" on all lands designated medium density or greater within the University Park planning area. The maximum possible number of dwelling units in this area is 5,993. Specific development criteria set forth in Program 9.A, in the residential lands discussion below, are to be satisfied in order to qualify for the overlay and higher residential densities.

CITY REDEVELOPMENT PLANS

The City Redevelopment Agency (RDA) has established and facilitates renewal, renovation and revitalization of several areas of the City located within four project areas (Project Area No.s 1 through 4), which encompass approximately 11,771 acres. The City RDA was established in 1974 and is governed by a five-member board comprised of the City Council; the Mayor acts as the Chairperson of the RDA. The City has adopted and maintains five-year "Implementation Plans" for each of the four project areas.

The City RDA and its Project Area Plans are important means of achieving land use and other General Plan goals in the City. In addition to enhancing the environment for and facilitating commercial development, the RDA is an important participant in the development of affordable housing in the City. The City RDA has been able to facilitate the development of a wide range of residential developments. The General Plan represents and incorporates the various redevelopment Plans of the City, both plans are maintained to be consistent with one another, and are essentially one in the same.

Principles of Land Use Compatibility

An essential issue associated with the development of land use plans that incorporate a mix of uses is how to make these various uses compatible with one another and with surrounding transportation facilities. One approach is a spatial organization of uses that represents a gradient of type and intensity, where for instance, adjoining residential densities logically transition from areas of lower to higher densities. Another approach is to insulate sensitive lands uses (residences, schools, etc.) from areas of transportation noise by establishing a buffer of less noise sensitive uses, such as the business park buffer between residential areas and the Interstate-10/Union Pacific corridor.

By avoiding the placement of sensitive residential uses adjacent to arterial roadways, these developments can forgo the need for walls and other acoustical barriers and allows the development to have frontage and a relationship with the adjoining street. Along major roads, compatible development such as professional offices or commercial uses have direct access to the street, can be developed to complement the streetscape and have a vested interest in the appearance and maintenance of the parkway that serves as their front door. Land use compatibility is discussed further in the Community Design and Noise Elements.

FUTURE DIRECTIONS

The future will continue to see in-fill development throughout the City. Land use within the City corporate limits is largely established, but there are still important opportunities to further expand and diversify the land use pattern in the community. In the University Park planning area, the General Plan Land Use map and policy provide for coordinated and integrated neighborhood design with a full range of housing, resort and commercial opportunities, business park, institutional uses, and open space and recreational lands.

Along Interstate-10 a variety of circumstances have created an inherent logic of land use. Physical constraints and opportunities, a high level of infrastructure and the significant drive-by market on the freeway and nearby arterial roadways support the substantial commercial lands designated in the General Plan Land Use map. These lands also serve as gateways to the City, and greater involvement in land use and development decisions on both sides of Interstate-10 are in the interest of the City.

Finally, the City has extended its planning efforts to include open space and conservation lands, and low and very low density residential development within and between Thousand Palms and Sky Valley. While not within the City's SOI, these lands and how they are managed may have a direct effect on the quality of life for residents of Palm Desert and for the entire Coachella Valley. The City should continue to play an active, and if possible, formal role in land use determinations in this area.

GENERAL LAND USE GOALS, POLICIES AND PROGRAMS

Goal 1

A City that provides a balanced and functional mix of integrated land uses meeting the general social and economic needs of the community through logical, compatible and consistent land use and zoning designations.

Goal 2

A diverse resort residential community of desirable residential neighborhoods and resorts, full commercial services, and institutional uses that complement the employment base and provide a variety of community services and facilities.

Goal 3

An appropriate mix of commercial, resort and other revenue-generating land uses that will continue to fund a high level of community development activities, services and facilities in the City.

Policy 1

The City shall establish and maintain a thoughtful, balanced and functional master land use map designating the appropriate land uses that implement the goals and policies of the Land Use Element and other elements of the General Plan.

Policy 2

The City Zoning Ordinance shall directly correspond to the General Plan land use designations and shall include appropriate zoning regulations that implement the Land Use Element.

Program 2 A

The City shall adopt, maintain and update a Zoning Ordinance and designations that directly correspond to designations set forth in the Land Use Element, and which guide and regulate development consistent with the General Plan.

Responsible Agency: City Council, Planning Commission, Community Development Department.

Schedule: 2004-2005; Revise as needed.

Policy 3

The City shall integrate land use analysis and planning with economic and fiscal analysis as an essential part of development of a master strategic plan for economic development.

Policy 4

Every opportunity shall be exploited to enhance the character and viability of the City's commercial areas, including Highway 111, El Paseo, the University Park planning area and the Interstate-10 corridor, by integrating nearby higher density residential uses with retail and office/business park land uses.

Program 4 A

The City shall incorporate land use and development standards into the Zoning Ordinance that permit and encourage the appropriate integration of residential uses into mix-use commercial land use areas and zoning districts.

Responsible Agency: Community Development Department, Planning Commission, City Council

Schedule: 2004-05

Program 4 B

A Specific Plan shall be prepared for the University Park planning area, which substantially conforms with the General Plan and Land Use Map, and which optimizes policies and programs set forth in the Land Use, Community Design, and Economic and Fiscal Elements.

Responsible Agency: Community Development Department; Planning Commission; City Council

Schedule: 2004-05

Policy 5

The City shall consistently apply principles of land use compatibility in its determination of land use designations and appropriateness, optimizing the ability of proposed development to complement adjoining planned and existing land uses.

Policy 6

All land use development proposals shall be consistent with all applicable land use policies and standards contained in the General Plan and findings of consistency shall be cited in appropriate ordinances and resolutions.

Policy 7

Thoughtful and effective in-fill development shall be encouraged by developing and updating neighborhood Specific Plans and by prioritizing capital improvements in the developed areas of the City.

Program 7 A

The City shall review and report on the state and efficacy of existing Specific Plans, set forth recommendations for their updating or retirement, and make recommendations for new Specific Plans that will facilitate achieving the City's General Plan goals.

Responsible Agency: Community Development Department, Public Works Department, City Council

Schedule: 2004; Every Three Years Thereafter

Program 7 B

The City's capital improvement program shall assign high priority to projects serving the City's developed and developing areas, and shall especially focus on those in-fill areas where new development or renovation can be facilitated and enhanced.

Responsible Agency: Public Works Department, Community Development Department

Schedule: Annually

Program 7 C

The City shall make available maps and other information showing the location of all available infrastructure and shall encourage development in those areas where infrastructure is under-utilized.

Responsible Agency: Public Works and Community Development Departments, RDA, City Council

Schedule: Continuous

RESIDENTIAL LAND USES

BACKGROUND

The City of Palm Desert has evolved as the valley retail commercial and business center, with a strong resort residential component. In the past two decades, the community has experienced steady to accelerated growth due to local and regional economic conditions, and the annexation of largely developed lands. The 2000 U.S. Census indicates, the City had approximately 28,071 dwelling units, of which approximately 11,120 were detached and 9,551 attached single family units. About 6,201 were multi-family units. The City also had 1,199 mobilehomes.

The prevalence of single family residential development has helped establish the relatively low density character of the City, which has been enhanced by the prevalence of golf course oriented resort residential developments. This predominant pattern of residential development has provided residents with open space and recreation opportunities on their own individual lots and within their own developments.

Conventional single family subdivisions served directly by public streets have continued to be developed. Planned Residential Developments (PRDs) are also well established in the City and preserve low densities by transferring development rights to specific areas and dedicating large areas of a development to community open space and recreation uses. Both types of development have been important to assuring availability of high quality residential environments in the City.

Seasonal Community

Of the City's 28,071 dwelling units cited in the 2000 Census, 19,370 were occupied by permanent residents, while 8,701 units or 30.9% of residences were second or vacation homes for part-time residents. Therefore, the City's seasonal population increases substantially during the fall/winter/spring months and decreases during the summer period. Seasonal/second home residences are generally located throughout the community. This substantial seasonal population has different expectations and makes different demands on the City and its other land uses, including commercial and institutional services and park and recreation facilities.

Projected City and Planning Area Population

City Population & Projections (Corporate Limits)

The General Plan provides for a range of residential densities from estate lots to up to twenty-two (22) dwelling units per acre within seven residential land use designations. Within the City boundaries, the majority of the area is currently (2003) developed as single family residential dwelling units within both standard subdivisions and PRDs. During the 1990s the City's population grew 40 percent with a Year-2000 permanent population of 38,766. During the same period, the number of dwelling units grew by 53.5 percent.

The City's average household size was 2.18 in 1990 and had dropped slightly to 2.13 by 2000. However, in the larger planning area the average household size is 2.43 persons. This larger average household size is used to estimate buildout population in the City and the balance of the planning area for new residential construction.

For a more detailed discussion of the City's household and demographic composition, please see the General Plan Housing Element and Economic Development Element, as well as the General Plan Program EIR. Based upon existing development and the General Plan Land Use Map, the City (corporate limits) has a potential to generate a maximum total of 41,088 dwelling units during buildout. Based upon an existing permanent population of 43,917 (2003, DoF) and an average of 2.43 persons for all future household formation, the City's permanent population at buildout would range from 53,034 to 59,340.

Planning Area Population and Projections (Unincorporated Area)

As noted above, buildout population projections are based upon existing populations and maximum total residential units that could be developed. The unincorporated portion of the planning area has 15,152 residential units and a total current (2003) population of approximately 22,756 (Claritas, 2003). Buildout of the unincorporated area would yield a maximum of 18,320 additional residential units (See GP Program EIR "Less Intense Alternative adopted for unincorporated lands), and would raise the total buildout population in this area to 67,274. Lands north of I-10 are subject to a variety of development constraints, including flooding and seismic conditions, a lack of infrastructure and important habitat for sensitive species planned for acquisition. Actual buildout in this area is expected to be at substantially lower overall densities and a commensurate population

**Table III-4
Residential Land Use Buildout Statistical Summary
City Limits**

Land Use Designation	Dev. Acres	Vacant Acres	Total Acres	Existing Units	Potential Units	Buildout Units
R-DE Mountain Estates (0-1 du/20ac)	-	-	-	-	-	-
R-DE Desert Estates (0-1 du/10ac)	-	-	-	-	-	-
R-HR Residential Hillside Reserve (0-1 du/5 ac)	81	462	543	16	92	108
R-L Low Density Residential (0-4 du/ac)	7,294	257	7,552	21,883	771	22,653
R-M Medium Density Residential (4-10 du/ac)	1,086	35	1,121	8,146	262	8,405
R-M Medium Density w/R-HD Overlay (4-22 du/ac)	-	288	288	-	2,162 to 4,757	2,162 to 4,757
R-H High Density Residential (10-22 du/ac)	261	4	265	4,696	68	4,764
C-MU Mixed Use (Res.) (10-22 du/ac)	-	20	20	-	360	360
Study Zone (S) (0-4 du/ac)	-	12	-	-	36	36
Total Residential	8,722	1,078	9,801	34,741	3,752 to 6,347	38,493 to 41,088

Jobs/Housing Balance

The overall growth of the community and its economy has important repercussions with regard to the generation of jobs and the need for local housing. Regionally, employment opportunities

have increased but the development of new homes with affordability commensurate with salary ranges has not kept pace. As a result, roadway congestion has increased, and the lack of sufficient, appropriately priced housing has resulted in higher housing prices and rents. Regional air quality is also affected by increased average trip length to employment centers.

According to the Southern California Association of Governments (SCAG), in 1997 Palm Desert had 1.92 jobs for each household in the City, second only to Blythe in the jobs per household ratio. Every community is expected to make a good faith effort to establish a balance between local jobs and the number and affordability of housing units. The Land Use Map assigns residential uses and densities that help to address this issue, with increased densities in areas that will also contribute to improved affordability. New residential development is also planned in proximity to emerging employment centers, especially in the University Park Village area. Also see the General Plan Housing Element for data and information on housing and for policies regarding the jobs/housing balance.

Affordable Housing

The City, and all other jurisdictions in the State of California, are required to assure the provision and availability of decent housing and a suitable living environment for all economic segments of the community, with special attention to very low, low, and moderate income groups. The elderly are also an identified special group which requires special attention when providing for the community's housing needs, as do those paying too much for rent/mortgages and those living in overcrowded conditions.

One area where attention is also needed is in the middle income market, which has seen less new housing product developed in the City. This has resulted in a gap in the provision of affordable housing for this segment of the community and a need for more housing in the \$150,000 to \$300,000 range. For additional information addressing these and other related issues of the community associated with housing stock, please refer to the Housing Element of the General Plan.

RESIDENTIAL GOALS, POLICIES AND PROGRAMS

Goal 1

A balanced range of housing types, densities and affordabilities that accommodate existing and future residents across all socio-economic sectors of the community.

Goal 2

The preservation and enhancement of the City's existing neighborhoods.

Goal 3

Residential neighborhoods that are thoughtfully integrated with community parks and schools, and have convenient and appropriately located access to employment centers and commercial services.

Policy 1

The City shall strive to provide a balanced mix of housing product that thoughtfully responds to the demands and opportunities associated with the City's strength as a retail commercial center and major destination and residential resort community.

Policy 2

Residential land use planning in developing areas shall preserve neighborhood character and assure a consistent and compatible residential land use pattern.

Program 2 A

The City shall assign and periodically review residential land use designations to assure that related General Plan goals, including preservation of developed and developing neighborhoods, are met.

Responsible Agency: City Council, Planning Commission, Community Development Department.

Schedule: Ongoing; every five years.

Program 2 B

Consistently apply the City's discretionary powers and development review process to assure that subdivision and development plans are compatible with existing residential areas.

Responsible Agency: Community Development Department.

Schedule: Continuous

Policy 3

The City shall encourage in-fill development on lands located adjacent to or near existing residential areas and utilities to maximize the efficient utilization of land and infrastructure.

Policy 4

Within master-planned developments, phased implementation shall be consistent with and adhere to the maximum overall densities approved for the entire development.

Policy 5

Density transfers may occur in planned residential developments in conjunction with the provision of common area amenities and open space. Golf courses, greenbelts, pool areas and other open space uses incorporated into these developments shall be designated as Open Space areas to assure their preservation as such.

Policy 6

The City shall establish, maintain and update standards and regulations affecting proposed development on incorporated City lands, including open space, flat-lands and hillside designations. Development parameters to be addressed include areas of slope and slope disturbance, development area and lot coverage, re-naturalization and revegetation, and access roads.

Policy 7

The City Zoning Ordinance shall provide residential development standards that address set backs, height, pad elevations and other design and performance standards, which assure privacy while preserving scenic viewsheds from adjoining properties and preserve right-of-way for future roads and infrastructure.

Policy 8

Low income/affordable housing shall not be located within one area of the community, but shall be dispersed where feasible, appropriate, and compatible with surrounding land uses.

Program 8.A

The City shall monitor the amount of low income housing available and make best efforts to meet State requirements for providing such housing types.

Responsible Agency: City Council, Planning Commission, Community Development Department; Redevelopment Agency

Schedule: Continuous

Policy 9

Within the University Park planning area, the City shall uniformly apply a "High Density Overlay" designation to all lands designated for Medium Density Residential (R-M) development to provide the opportunity to develop at R-H densities in compliance with specific performance criteria.

Program 9.A

The "High Density Overlay" development standards assigned to allow development of R-H (High Density Residential, 10-22 du/ac) on any R-M lands within the University Park planning area shall be further elaborated and incorporated into the City Zoning/Development Code and shall be consistent with the following performance criteria.

1. The percentage of residential units, whether single or multi-family, that shall be available for homeownership.
2. High density residential neighborhoods shall be located in proximity and have convenient access to public transportation.
3. High density residential development shall be located in proximity to schools, parks and commercial services, which shall be accessible by means of non-motorized vehicle routes.
4. The percent of proposed high-density units to be reserved to meet the affordable housing needs of the community.
5. Adequacy and usability of landscaped open space planned internal and integral to the design of high-density developments.
6. Development plans reflecting creative and innovative design in site planning, building design and landscape treatment, consistent with the General Plan Community Design Element.
7. Development proposals with high-density residential units shall include analyses of the potential fiscal impacts of the development.

Responsible Agency: City Council, Planning Commission, Community Development Department; Redevelopment Agency

Schedule: 2004; On-going

COMMERCIAL LAND USES

BACKGROUND

In the early 1980s, Palm Desert emerged as the focus of retail commercial activity in the Coachella Valley. The City's central location and development of the Palm Desert Town Center by Ernest Hahn in 1982 gave momentum to the emergence of City as a commercial center. Today, a wide range of commercial development centered around the mall (Westfield Shopping Town) and include the Highway 111 Town Center, Waring Plaza and Desert Crossings. The success of this concentrated shopping district also induced redevelopment and expansion along other portions of Highway 111 and the upgrading of El Paseo to the premier high-end shopping promenade of the desert. In this regard, the City's higher end commercial districts have benefited from the market associated with growth in up-scale residences and their associated higher levels of discretionary income. The City is also home to a wide variety of small chain and independent retailers, including "mom and pop" stores that have been successful despite the competition from larger retailers.

Through the 1990s and continuing today (2002), major new commercial development has emerged along the US Interstate-10 corridor and includes the Costco Center and commercial development in Rancho Mirage. The focus along I-10 is at the interchange of Monterey Avenue and Interstate-10, where "big-box" and other community-scale shopping development is planned. The Cook Street/I-10 interchange area is also seeing retail development, including service stations, hospitality and other highway-serving commercial uses, and substantial opportunities are expected on the north side of I-10. The University Park planning area is also expected to provide excellent development opportunities for a wide range of commercial services. Taking advantage of the gateway function and drive-by market along Interstate-10 will further deepen and secure the City's position as the dominant retail commercial force in the Coachella Valley.

The evolution of tourism and resort development in Palm Desert has been similar to that of the retail commercial sector. In the past two decades, Palm Desert has emerged as the second largest market for hotel and motel, and the hospitality industry (including timeshare) continues to be attracted to the City. Opportunities remain in the City and the planning area for additional hotel and timeshare development. In addition to the generation of Transient Occupancy Tax (TOT), the expendable discretionary spending by tourist visitors is a significant contributor to taxable retail sales. These "new" monies have a significant stimulating effect on and benefit to the local economy.

The General Plan provides substantial acreage for future commercial development. These include lands within existing commercial areas, and lands where development has yet to occur. Planning areas with substantial potential for growth include the Interstate-10 corridor and interchanges, commercial components of the University Park Village area, and in-fill areas within existing commercial areas. Each of the commercial land use categories and their development potential in approximate gross leasable area (gla, in square feet) are set forth in the table below.

Table III-5
Commercial Land Use Buildout Statistical Summary
Total Planning Area

	Total Acres	Dev. Acres	Vacant Acres	Existing Sq. Ft.*	Future Sq. Ft.*	Total Sq. Ft.
C-C Community Commercial	295	220	75	2,394,711	815,661	3,201,372
C-MU Commercial Mixed Use	20	-	20	-	217,800	217,800
C-OP Office Professional or Residential Potential	27	25	2	266,805	26,136	292,941
C-OP Office Professional	94	71	23	767,745	251,559	1,019,304
C-R Regional Commercial	472	240	232	2,616,867	2,521,035	5,137,902
C-R/H Resort Commercial	832	667	165	7,262,541	1,794,672	9,057,213
Commercial Subtotal	1,740	1,222	517	13,308,669	5,626,863	18,935,532

* Assumes 22% lot coverage for commercial development.

As shown on Table III-5, of the 1,740 acres of commercially designated lands in the Palm Desert city limits, approximately 517 acres or 30% are currently vacant. Within the City, the General Plan provides 232± acres of vacant Regional Commercial and 75± acres of vacant Community Commercial lands.

In the unincorporated portions of the planning area, lands designated for commercial development total 663 acres, of which approximately 163 acres has been developed. Commercial lands in the unincorporated areas are located primarily at I-10 interchanges and along the east side of Washington Street. These lands offer important opportunities for servicing the traveling public as well as local residential markets (Also see Table V-3 in the GP EIR).

Buildout of the General Plan in the planning area could facilitate development of approximately 1,740 acres resulting in up to 18,935,532± square feet of commercial space within the City limits, and up to 6,354,620± square feet within the unincorporated portions of the General Plan planning area.

COMMERCIAL GOALS, POLICIES AND PROGRAMS

GOAL 1

An integrated and complementary mix of commercial land uses that meet the day-to-day needs of local residents, fully exploit opportunities to serve the regional retail commercial market, and provide hospitality and tourist commercial development opportunities.

GOAL 2

A pattern of commercial land uses conveniently and appropriately distributed throughout the City, meeting the community's needs while minimizing the disruption to or incompatibilities with other land uses.

Policy 1

Sufficient lands shall be designated to provide a full range of conveniently located convenience, neighborhood, regional and tourist commercial services to the residents and visitors of the community and surrounding areas for present and future years.

Program 1 A

The City shall periodically review and maintain the Land Use Map to assure sufficient lands are designated to provide a full range of commercial uses to support the needs of the community and local economy in a manner consistent with economic opportunities and the resort residential character of the community.

Responsible Agency: City Council, Planning Commission, Community Development Department

Schedule: Continuous

Program 1 B

The City shall prepare and make available market information to developers and realtors, which identifies the City's service needs and potential sites suitable for and appropriate to those commercial goods and services.

Responsible Agency: Community Development Department, Redevelopment Agency

Schedule: 2004; Continuous

Policy 2

The Zoning Ordinance shall provide development standards and guidelines for commercial land uses to include setbacks, pad elevations, massing and height limitations, and other requirements, and which assure adequate visibility and accessibility while preserving the scenic viewsheds from adjoining properties and public rights-of-ways.

Policy 3

The City shall encourage lot consolidation and integrated development planning wherever possible, with special emphasis along the Monterey Avenue and Cook Street corridors, as well as in the University Park planning area. Subdivisions shall be consistent with and complement the development of City's coherent master land use plans.

Program 3.A.

The City shall development and implement incentive programs for selected lands to encourage cohesive and coherent commercial development patterns, which reduce fragmented development, enhance community design values and promote effective in-fill development.

Responsible Agency: Community Development Department; City Council; Redevelopment Agency

Schedule: Continuous

Policy 4

The City's Land Use Plan shall take full advantage of the potential for University-related commercial needs and/or development opportunities, including direct and indirect inducements for complementary commercial development.

Policy 5

The City shall facilitate the redesign and construction of enhanced vehicular access and commercial serving parking on Alessandro Alley between Las Palmas Drive and Monterey Avenue, as set forth in the Commercial Core Area Specific Plan discussion in the Land Use Element.

Program 5.A.

The City shall coordinate with commercial business owners and residents backing onto Alessandro Alley between Las Palmas Drive and Monterey Avenue, and shall design and facilitate the construction of a 24-foot wide two-way drive and one row of 90° parking along the north side of this right-of-way. Landscaping and decorative masonry walls shall also be incorporated into the design to buffer residences from drive traffic and parking activities. San Marcos Avenue south of San Clemente Circle will be closed to automobile traffic. Public access for pedestrians, bicycles and golf carts shall be maintained. The City shall pursue where feasible financial participation from the benefiting commercial property owners towards the cost of right of way acquisition, construction and maintenance of the improvements.

Responsible Agency: Community Development and Public Works Departments, RDA

Schedule: 2004-05

INDUSTRIAL/BUSINESS PARK LAND USES

BACKGROUND

Industrial development in the Coachella Valley is limited and seldom goes beyond certain niches that can do well within the geographic and demographic constraints and limitations of the area. Most recently, however, stimulus and opportunities for synergies may be emerging in association with the development of the Palm Desert Campus of California State University, UCR and other institutions of higher learning. Currently, industrial development in the City is largely limited to light and service-oriented businesses supporting the construction industry, and demands generated by commercial and residential development. Primarily business park development has occurred within the City's "industrial" area east and west of Cook Street and defined by the Whitewater River on the south and Hovley Lane on the north.

The City and region may benefit from and have opportunities for growth of research and development (R&D) industries associated with development of the California State University campus and its planned six schools of focus. University-associated R&D industries are typified by clean or non-polluting operations conducted within enclosed buildings, and employ highly trained and well paid specialists in research and technology.

Planning in the University Park planning area shall provide important opportunities for development of business incubators that are fed by academic and research activities at the campus. These synergies have been effective at diversifying the economies of many communities, and the City provides many natural advantages for university-supported R&D development. The University Park planning area provides lands for business park and light industrial development south of and adjacent to the Interstate-10/Union Pacific Railroad corridor, from Monterey Avenue to the eastern terminus of Gerald Ford Drive.

**Table III-6
Industrial Land Use Buildout Statistical Summary
City Limits**

Industrial Designations	Dev. Acres	Vacant Acres	Total Acres	Existing Sq. Ft.	Future Sq.Ft.	Total Sq. Ft.
I-BP Business Park	222	293	515	2,415,402	3,189,681	5,605,083
I-L Light Industrial	10	-	10	104,544	-	104,544
Industrial Total	232	293	525	2,519,946	3,189,681	5,709,627

Industrial Lands in the City

As shown in the above table, the General Plan identifies 232± acres of developed and 293 acres of vacant industrial land in the City. While precise numbers are not available, it is estimated that the various uses on the City's developed industrial lands equates to approximately 2.5 million square feet with the potential for an additional 3.1 million square feet. The industrial designation also applies to lands designated as Business Park, which constitutes all of the City's existing development on these lands.

Industrial Lands in the Unincorporated Areas

The unincorporated portions of the General Plan study area include 401± developed acres and 808 vacant acres of industrial land, which could add up to 11,969,765 square feet of industrial/business park space in the unincorporated portion of the planning area. In contrast to the types of uses located in the City, industrial development on these unincorporated lands are of a more traditional type, and include heavy manufacturing and resource management, as well as business park development. The potential for additional industrial development in the City and larger planning area is significant, and could yield an additional 15.1 million square feet of industrial space. Total buildout of General Plan industrial lands could yield up to 23.6 ± million square feet acres of industrial development space (Also see Table V-3 in GP EIR).

Industrial Development and Community Character

The City General Plan should limit opportunities for the development of medium industry to areas where such development would not adversely impact and be incompatible with the important aesthetic, environmental or resort qualities that define the community. The General Plan makes no provision for the development of "heavy" industries in the planning area. All proposals for business park and industrial development shall be carefully evaluated to assure that they do not adversely affect the City's primary economic resources, including resorts and tourism, and the natural environment and resources.

INDUSTRIAL GOALS, POLICIES AND PROGRAMS

Goal 1

Appropriately located and served lands that provide for the development of business parks and non-polluting industrial uses, and which assure compatible integration with other, non-industrial land uses.

Goal 2

Business park and industrial lands and uses that complement and take advantage of local university and college programs and curricula, and are geared to research and development.

Policy 1

Provide adequate and appropriate lands designated for business park/industrial uses to provide a sufficient range of industrial development that is compatible with and complementary to local needs and opportunities.

Policy 2

Industrial lands shall be located in areas that maximize all available and planned infrastructure, including but not limited to water and sewer service, electric and natural gas service, major transportation corridors and public transportation, and shall minimize the impact on public health and safety.

Policy 3

To enhance the efficient use and integration of industrial lands in the University Park Village planning area, the City shall prepare the University Park Plan, which assures land use compatibilities and provides master plans for the extension of roadways, drainage facilities, utilities and other infrastructure.

Program 3 A

As an integral part of the University Park Plan, the City shall fully assess and integrate business park and industrial lands and shall develop and adopt circulation, infrastructure, drainage and development standards and guidelines to assure efficient industrial development consistent with the character and quality of the planning area and community.

Responsible Agency: City Council, Planning Commission, Community Development Department

Schedule: Continuous

Policy 4

The City shall seek to facilitate appropriate business park/industrial land uses for which the area is particularly suited and encourage those industries to take advantage of the local labor force and markets with which the City has a comparative advantage.

Program 4 A

In cooperation with property owners, local colleges and universities, Chamber of Commerce, as well as other private interests, the City shall support development of business parks and industrial lands through coordinated joint efforts.

Responsible Agency: Private Owners; Community Development Department, Redevelopment Agency; Chamber of Commerce, CalState, UCR, COD

Schedule: Continuous

Policy 5

The City shall encourage and support the relocation of inappropriately located industrial or quasi-industrial land uses, which are incompatible with existing and planned land uses.

Program 5 A

The City shall evaluate existing industrial and quasi-industrial land uses and encourage the formation of business/industrial parks appropriate for relocating existing inappropriately located industrial uses.

Responsible Agency: Community Development Department, Redevelopment Agency, Developers

Schedule: 3-5 years

Policy 6

The City shall require adherence to applicable development standards and guidelines, including those set forth in the Community Design Element and the Zoning Ordinance, to assure aesthetically acceptable business park/industrial developments for all new park sites.

Program 6 A

As an integral part of business/industrial park planning, the City shall require thoughtful site planning and extensive use of walls and landscaping to enhance the appearance of industrial areas.

Responsible Agency: Community Development Department

Schedule: Continuous

Program 6.B

The City shall review all business park/industrial development proposals with a special regard for public health and safety issues to ensure that the type and intensity of the use is appropriate for the proposed location and compatible with surrounding land uses.

Responsible Agency: Community Development Department

Schedule: Continuous

PUBLIC SERVICES AND FACILITIES

BACKGROUND

The community land use plan is designed to assure the availability of appropriate lands for the provision of public facilities and services. Provision of public services and facilities is one of the principal concerns or functions of local government. Land uses for public facilities include such governmental functions as City Hall and fire stations, water wells and storage tanks. Others include schools, hospitals and other medical facilities, utility facilities, public parks, and libraries.

Table III-7
Public/Quasi-Public Lands Statistical Summary
City Limits

	Dev. Acres	Vacant Acres	Total Acres
PF/U University	192	-	192
PF/S Schools	59	15	74
PF Public, Quasi-Public Facilities	385	1	386
Total Public/Quasi Public	636	16	653

Table III-7 shows, that the General Plan provides about 636 acres within the City limits and about 450 acres within the City's sphere-of-influence and planning area for public services and facilities. The largest portion of vacant public lands in the City are designated for schools, including the CSSB Palm Desert Campus currently under development. In the unincorporated portions of the planning area, the vast majority of public lands (87%) are associated with I-10 rights-of-way.

The level and scope of public services and facilities is largely determined by the extent and intensity of various land uses within the planning area. Residential, commercial, institutional and industrial development each generate specific demands for public services and facilities. The planned, logical extension of urban areas cannot occur without careful planning for the extension of public services and facilities. This includes the maintenance of adequate staffing of City departments responsible for regulating land use and development, assuring adequate and appropriately designed and constructed streets and drainage facilities, and the provision of economic development assistance.

Several service providers are not under the direct regulatory jurisdiction of the City. For instance, the Coachella Valley Water District (CVWD), rather than the City, is responsible for domestic water and sewer facilities. CVWD is responsible for assuring the provision of regional flood control facilities. The City is a partner in the governance of the Sunline Transit Agency, and has the essential responsibility to cooperate and coordinate with this and other appropriate agencies to assure that public services and facilities complement and are compatible with other land uses.

Schools and libraries are also essential public facilities that provide important services and enhance community cohesion. The quality of community library facilities is often an important issue for those considering residing in the city. Schools and libraries are land use sensitive, and their location requires careful consideration of public safety, accessibility, and impacts from noise and traffic. These facilities play an increasingly important role in the community. While consultation with the City and local jurisdictions is required, most school-related decisions rest with the school districts, with building, planning and design approved by the State Architect's Office. Nonetheless, the City can advise, assist and coordinate with the school districts and state agencies in the planning and provision of educational facilities to assure that quality services are provided to the community.

PUBLIC SERVICES AND FACILITIES GOAL, POLICIES AND PROGRAMS

Goal

Maintenance and logical and efficient expansion of public services and facilities ensuring that they meet the needs of existing and future residents, business and visitors of the City.

Policy 1

The City shall pro-actively cooperate and coordinate with all providers of utility and public facilities and safety services in the community to assure adequate and quality levels of service.

Program 1.A

The City shall regularly coordinate and, as appropriate, cooperate with the various public and private providers responsible for utilities, police, fire, health and other protection and care services in the community.

Responsible Agency: City Council, Community Development Department, Public Works Department, Cove Communities Fire Department, Police Department, Public Utilities, PSUSD and DSUSD, Hospitals

Schedule: Continuous

Policy 2

The City shall encourage the timely development of public services and facilities in a manner, which assures adequate levels of service, while remaining compatible with existing and future land uses.

Program 2.A

As a lead or responsible agency, the City shall coordinate and, as appropriate, regulate the development of public services, utilities and facilities to maximize the efficient delivery of services to the community, while assuring compatibility with existing and future land uses.

Responsible Agency: Community Development Department, Public Works Department,

Schedule: Continuous

Policy 3

The City shall cooperate and coordinate with Sunline Transit Agency, CVAG and other transportation agencies to assure the highest level and quality of mass transit practical.

OPEN SPACE AND CONSERVATION

BACKGROUND

Open space areas preserved for outdoor recreation include those areas particularly well suited for park and recreation purposes; lands with outstanding scenic, historic and cultural value; and areas that serve as links between major recreation and open space facilities, including utility easements, mountainous areas, wash courses, trails and scenic highway corridors. There are four categories of open space land, which are relevant to the General Plan planning area. Each type of open space has many issues regarding use and conservation. The following gives a brief description of each category and typical locations within the planning area.

Table III-8
Open Space Lands Statistical Summary
City Limits

Open Space Designation	Dev. Acres	Vacant Acres	Total Acres
OS/FW Floodways	238	-	238
OS/PP Public Parks	911	-	911
OS/PR Public Reserve	844	-	844
OS/PV Private Open Space	578	-	578
Total Open Space	2,572	-	2,572

As indicated in Table III-8, the General Plan designates a total of about 2,572 acres as Open Space lands within the city limits. City Open Space lands include 911 acres designated as public park lands and 238 acres as floodways. In the unincorporated portions of the planning area, about 37,761 acres are designated as Open Space, with the overwhelming majority (98%) being vacant public lands. The combined open space lands in the planning area total 40,333 acres.

Open Space for Outdoor Recreation

The City and the region provide a variety of open space amenities and venues for outdoor recreation. The Living Desert is the number one open space recreation attraction in the Coachella Valley, with about 300,000 visitors each year. It has grown to cover a total of 1,200 acres, of which about 200 acres support a zoo and botanical garden, while the remaining acreage, located in the Santa Rosa Mountains, is kept in its natural state as a preserve. It is solely dedicated to interpreting and conserving the deserts of the world and is home to a variety of plants and animals from worldwide desert ecosystems.

Joshua Tree National Park abuts the northern boundary of the General Plan planning area and encompasses 794,000 acres, traversing two ecosystems: the Mojave and Colorado deserts. The eastern portion of the park is classified as a part of the Colorado Desert, while the western portion of the park is part of the Mojave Desert. In addition to being a significant natural resource, the park is a great historic and cultural resource with remnants of the Native Americans who lived in and traveled through the area, leaving behind rock paintings and pottery. Abandoned mines from the era of the California Gold Rush are also located in the park. More than 80% of the park is designated as wilderness, which provides an excellent environment for recreational activities, including interpretive walks and talks, hiking, rock climbing, horseback riding, wildlife viewing and camping.

The Santa Rosa Mountains National Scenic Area (SRMNSA) has been recognized by the U.S. Congress as a nationally important scenic and national resource area, which warrants planning for the long-term protection of the mountains and its valuable wildlife and scenic resources. The SRMNSA is also part of the Coachella Valley Multi-Species Habitat Conservation Plan (MSHCP) planning area.

The U.S. Congress and the President established the San Jacinto and Santa Rosa Mountains National Monument in October, 2000, creating a monument that extends from the San Geronio Pass southeast into the Imperial Valley. The Monument designates 440 square miles in five climate zones, ranging from desert to arctic pine. The Monument designation resulted in prohibitions on mining and off-road vehicle use. A management plan is currently (2001) being developed for these lands.

Parks and Recreation Areas

While City and planning area open space and conservation resources frequently include sensitive ecosystems and areas of important scenic beauty, developed and undeveloped park lands meant for active and passive recreation are also important open space resources that must be planned for use, management and preservation. All of the City's open space lands should reflect an ethic of integrated enhancement that incorporates the varied uses of open space for recreation, scenic viewsheds and passive enjoyment, as well as the preservation of important biological and cultural resources.

Important examples include the City's Civic Center Park, with its date palm grove, lake and amphitheater, which provide important managed open space areas designed for use and recreation activities (also see the Parks and Recreation Element). Many of the City's facilities are of a regional nature, serving the City and other Coachella Valley communities.

There are four types of open space categories described in the Open Space element, which include open space for public parks (OS/PP), private golf courses and common open space areas (OS/PV), publicly owned reserves (OS/PR) and floodways/washes/channels (OS/FW). Each of these is discussed in more detail under the General Plan Element of Open Space and Conservation. Below are Policies and Programs for Open Space and Conservation, which will assist the City in implementing the Land Use Element as well as the Open Space element.

OPEN SPACE AND CONSERVATION GOALS, POLICIES AND PROGRAMS

Goal 1

The designation, conservation and management of open space areas to protect environmental resources, guard against environmental hazards, and provide enhanced recreational opportunities and enhanced aesthetic character for the City.

Goal 2

Land use patterns, which preserve the City's urban village scale and resort residential atmosphere, including scenic resources such as hillside, ridgelines and mountain vistas, canyons and washes, and native desert wildlife communities.

Policy 1

Identify and map lands suitable and appropriate for preservation as open space areas and establish appropriate management and enhancement activities.

Program 1 A

The City shall conduct a regular review and update of land use status, maps and information on the various types of open space and conservation lands in the community.

Responsible Agency: Community Development Department

Schedule: Continuous; every five years.

Program 1 B

Evaluate all development proposals adjacent to or in the vicinity of open space lands and identify their impact upon and compatibility with designated open space and conservation lands.

Responsible Agency: City Council, Planning Commission, Community Development Department

Schedule: Continuous

Program 1.C

The City shall develop or participate in the development of opportunities and mechanisms for public and/or private donations of open space lands to the City for the benefit of its residents and visitors.

Responsible Agency: Community development Department, City Council

Schedule: Immediately; Continuous

CIRCULATION ELEMENT

PURPOSE

The purpose of the Circulation Element is to assure the provision of a City street system that is correlated to and is sufficient to safely and efficiently convey traffic associated with the City's Land Use Map and pattern of development. The element must also take into account regional traffic and transportation infrastructure. The element is also meant to address and ensure the integrity of the community's physical, social and economic environment, and should assure that transportation issues are addressed in a manner that limits adverse and enhances positive impacts.

Palm Desert and the Coachella Valley have continued to be one of the fastest growing regions in California. As traffic has steadily increased, the City and its fellow members of the Coachella Valley Association of Governments (CVAG) face the challenge of protecting the residential resort character of the community while meeting the accessibility needs of the community's residents and visitors. The thoughtful distribution of land uses and the development of a logical hierarchy of local and regional streets will allow the City to balance infrastructure and quality of life goals.

On an ongoing basis, the City monitors the road system and its operating conditions. Using focused versions of regional transportation models, the City also analyses future traffic impacts due to growth projected for the City and region. This information-based approach, which is an essential part of the Circulation Element, also incorporates regional plans and facilities, and helps assure cost-effective and comprehensive transportation management.

BACKGROUND

Due to its close interrelatedness, the Circulation Element is an outgrowth of City and regional land use planning. The element and roadway system also affects and is affected by a variety of community and environmental factors. The Circulation Element has a direct relationship to the Land Use, Housing, Air Quality, Noise, Public Services and Facilities, and Economic Development Elements. The Community Design, Parks and Recreation, and Flooding and Hydrology Elements are also related to the Circulation Element. The types, intensities and mix of land uses in the City will predictably influence the types and volumes of traffic traveling the City's roads now and in the future.

Specific implementation programs are provided in the Circulation Element, which address the existing traffic conditions in the General Plan study area, and are designed to assure the preservation of roadway capacity in the community. California Government Code describes conditions and data to be researched, analysed and included in a General Plan Circulation Element. Government Code Section 65302(b) states that the General Plan shall describe the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities (also see Water, Sewer and Utilities Element).

The City is also required to coordinate its Circulation Element provisions with the applicable regional transportation plan, as set forth in Government Code Sections 65103(f) and 65080. In the General Plan study area these regional agencies include the California Department of Transportation (CalTrans), the Coachella Valley Association of Governments (CVAG), the Southern California Association of Governments (SCAG) and the SunLine Transit Agency. In addition, federal and state transportation planning must be coordinated with local planning pursuant to Section 134, Title 23 of the U.S. Code and California Government Code Section 65080(a), respectively.

The need to protect air quality is also associated with growing traffic volumes and infrastructure demand, and requires careful analysis and planning to protect the community from significant levels of locally generated pollutants. Vehicular pollutant emissions will increase with expanding population, miles traveled and less efficient travel conditions. However, the maintenance of adequate traffic flows, the prevention of traffic congestion caused by inadequate and/or failing roadways, and enhanced vehicle efficiencies will help preserve community air quality.

The Circulation Element has been developed to serve as a comprehensive transportation management strategy incorporating analysis of existing conditions within the City, and projected future development based upon buildout of the General Plan Land Use Map (see Land Use Element). Growth in regional traffic has been based upon statistical trends, an assessment of long-term regional growth potential, and the regional transportation model (CVATS) prepared by SCAG and CVAG. These data have also been used to develop the City transportation model, described below.

TRANSPORTATION AND LAND USE PLANNING

State law requires that the Circulation Element and associated transportation planning be directly correlated with the Land Use Element. The transportation issues faced by the City and the region include low occupancy per vehicle, a substantial physical separation between employment and housing rich areas of the region, an essentially defined roadway network, and the foreseeable buildout of the Coachella Valley.

Trends in both City and regional land use and development regulation are toward a more closely integrated assemblage of land uses that optimize nearby interactions and reduce the need for travel outside the neighborhood. In terms of traffic generation, the General Plan traffic analysis uses four separate “home-based” trip definitions and one “non-home-based” (see Palm Desert Traffic Model, below). That is, there are trips that originate from or are destined to the home, while other trips are between non-home destinations, such as from work to lunch, or from dinner to a movie.



Optimizing Land Use and Transportation Planning

Both local and nation-wide analysis has been used to determine how many trips per day each type of land use generates. The interrelationship of land uses is well understood. Ideally, community planning should be directed toward the efficient mix and distribution of land uses so that the greatest number of land use interactions can occur within the shortest distance practical. This proximity of complementary land uses, such as homes and neighborhood shopping, requires shorter trips, allows more trips to be completed by walking or by bike or golf car, and reduces demand for arterial roadway capacity.

Other considerations associated with transportation and land use planning include the benefits from increasing vehicle occupancy and use of mass transit systems, as well as facilitating the use of alternative modes of travel. Bus stops should be located within a ten minute walk or easy bicycling distance of residential neighborhoods and employment centers. Balanced and integrated land use planning will create optimum conditions for transit-based mixed use development, assure convenient and affordable housing in proximity to employment and neighborhood commercial services, and reduce impacts to the arterial roadway network. By shortening trips and making many of them local in nature, the quality of the community's neighborhoods can be protected and the impacts from noise and vehicle emissions can be minimized.

Transit-Oriented Land Planning

Since the emergence of the railroads in the mid-19th century, a variety of land uses have naturally grown up around such mass transit-oriented facilities as railroad stations, light rail lines and bus terminals. In addition to such commercial activities as taxis and car rentals services, hotels,



restaurants, shopping, newsstands and convenience services, many transit-oriented developments also incorporate professional office and high-density housing. Employment centers, such as office and industrial parks, are also developed in proximity to transit centers.

Transit-oriented land planning has evolved to maximize the access to and efficiency of the transit system and its users. In the vicinity of important transit stops, planning should provide land uses that maximize the convenience and efficiency of the transit system.

Features that make transit systems efficient include short direct routes and minimum headways between the point of trip origin and destination, in essence making trips quick and convenient. Frequent buses on a route reduce headway (waits between buses) and thoughtful interconnectivity with other routes increases efficiency of transfers.

Typically, residential development in the vicinity of transit centers is oriented toward higher density and affordability, implying a resident demographic more likely to take advantage of transit services. Transit facilities should be easily accessible by walking, bicycle or golf cart, and should also provide park and ride facilities for those wishing to use transit services for at least a part of their journey.

It is essential to achieve the critical levels of ridership needed to justify investment in facilities and services. Dispersed development results in fewer riders per route mile, longer trips from trip origin to destination. Too low demand means fewer buses and longer headways. Creation of critical ridership is essential to justify the investment needed to provide adequate levels of infrastructure and service. The City and SunLine must strike a balance of riders and destinations, and assure logical and efficient connections through simple and direct routes.

Transportation and Neighborhood Preservation

The roadway hierarchy, from local streets to major arterials, should be distributed and scaled to address existing and projected demand, while assuring that local traffic stays local, and inter-area travel is efficiently channeled to collectors and arterials. The design of the roadway network should facilitate arterial use while protecting local neighborhoods from cut-through and other non-local traffic. The use of traffic calming designs, such as narrower road widths, use of medians, and circuitous routes convenient only to local traffic, will also serve to preserve neighborhoods from undue traffic impacts.

Traffic Calming

Traffic calming is the term used to describe strategies and techniques designed to slow down traffic and improve safety. Traffic calming is also used to adjust the flow of traffic to levels compatible with surrounding land uses, such as residential neighborhoods, parks, schools and pedestrian-oriented shopping areas. Calming is typically accomplished by imposing constraints on movement and by providing less generous roadway paved sections. Such design features as curvilinear streets, narrow travel lanes and landscaped median islands act to slow down traffic and require greater awareness of the driver. More generous parkway landscaping resulting from narrower paved streets also improves neighborhood aesthetics.

Frequently, there is tension between traffic calming efforts and the need to provide adequate access for police, fire and other emergency vehicles. One fundamental requirement is the provision of a minimum 20-foot clear lane for emergency vehicles along streets or alleys, whether or not on-street parking is permitted. Accommodating both traffic calming and adequate emergency vehicle access can be achieved through thoughtful design of the roadway network to shorten segments of narrower streets, the provision of alleys for alternative access, parking restrictions and through other means.

While local streets will typically have a 60-foot right-of-way, rights-of-way and pavement widths may be reduced with the provision of other design features that assure adequate emergency vehicle access. General Plan standards should be viewed as guidelines that allow flexibility in public and private street designs. In this way, both traffic calming and emergency access needs can be achieved.

Transportation and Utility Services

The planning area's transportation network also serves as important rights-of-way for other public infrastructure, including drainage, water and sewer lines, electricity, telephone and cable. These services and their infrastructure will generally be comparable in scale to the capacity of the roadway, and their installation and maintenance can sometime conflict with roadway operations. However, conflicts frequently arise between roadway managers and utilities, including unsatisfactory closure and re-paving of utility trenches and the manner and efficacy of traffic control.

Pedestrians, Bicycles and Golf Carts

Over the past decade, the City has made a concerted effort to expand the options for pedestrians, bicyclers and golf cart users as alternatives to the use of motor vehicles. In addition to the expansions of sidewalks and on-street bicycle and golf cart paths, the City has encouraged integration paths for non-motorized use within planned developments. Walking and bicycling are not just an alternative means of transportation, but in the planning area are important for their use in recreation and exercise. Golf cart use on public rights-of-way is controlled by state regulations, and provides a convenient, low impact alternative to access convenient commercial development, as well as parks and public services.



The City shall continue its efforts to expand its network of pedestrian, bicycle and cart paths both in public rights-of-way and within private developments, to interconnect residential neighborhoods with convenient services, schools and parks, and bus stops. To the extent appropriate and practical, new development should be required to provide separate paths for bicycles and pedestrian to assure safety and avoid conflicts. Bicycle and golf cart parking facilities should be integrated into the design of commercial, office and public land uses.

Connectivity should also be a primary goal of residential subdivision design and should emphasize easy accessibility within and between neighborhood and commercial services to maximize the opportunities for pedestrian, bicycle and golf access by short and direct trips. This planning focus will also help to shortening vehicle trips for residents who must use their automobiles. Also see Exhibit III-9: Golf Cart and Bike Path Routes in the Parks and Recreation Element.

Circulation Element Requirements

The City must consider specific implementation programs addressing existing traffic conditions in the General Plan study area, which preserve and optimize roadway capacity in the community. State regulations that describe conditions and data to be researched, analysed and included within a General Plan Circulation Element, include the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities.

The City is also required to coordinate Circulation Element provisions with applicable regional transportation plans, which include those of the California Department of Transportation (CalTrans), the Coachella Valley Association of Governments (CVAG), the Southern California Association of Governments (SCAG) and the SunLine Transit Agency.

In addition, federal and state transportation planning must be coordinated with local planning pursuant to the U.S. Code and California Government Code. In this regard, regional traffic growth has also been considered, and has been based upon on-going monitoring, statistical trends, an assessment of long-term regional growth potential and the regional transportation model, CVATS, prepared by the Southern California Association of Governments (SCAG).

Transportation and Air Quality

One of the most pressing issues facing transportation is increased fuel economy per person-mile and a need to significantly reduce our emission of pollutants from cars, trucks and other vehicles. In the aggregate, auto and truck emissions will increase with continued population growth, more miles traveled and less efficient travel conditions. The maintenance of adequate traffic flows, the prevention of traffic congestion caused by inadequate and/or failing roadways, and enhanced vehicle operating efficiencies will help preserve the air quality in the community.

A variety of data are used to quantify and characterize existing traffic volumes and conditions along roadway links and at major intersections. In addition to traffic counts collected by the City, CVAG and CalTrans, additional sets of data are collected from project-specific studies and other sources to gauge existing conditions and provide a sound basis for projecting future traffic volumes. These various data are from the period of 1990 through 2002 and include mid-block roadway segments, as well as counts of intersection turning movements.

A traffic distribution process was utilized to analyze circulation and the effects of development on traffic. This process works directly with existing traffic volumes and existing street geometrics as its starting point. The term "geometrics" pertains to the dimensions and arrangements of the visible features of the roadway. These include pavement widths, lane configuration, barriers, slopes, drainage, interchanges, and other design features, which significantly affect roadway traffic operation, safety, and capacity.

Levels of Service

The capacity of a segment of roadway or an intersection is typically characterized as “Level- of-Service”. As gauged for mid-block travel, Level-of-Service (LOS) is a qualitative measure describing the character and efficiency of the flow of traffic. For intersections, the LOS is defined quantitatively, as the number of seconds the vehicle is delayed in passing through the intersection. LOS includes a range of alphabetical connotations “A” through “F”, used to characterize roadway operating conditions. LOS A represents the best/free-flow conditions and LOS F indicates the worst/system failure.

Mid-block Levels of Service are represented as volume to capacity ratios, or vehicle demand divided by roadway capacity. Therefore, as the ratio approaches 1.00 or maximum capacity, the roadway approaches LOS F. Added travel and turning lanes increase capacity, as do the inclusion of raised medians and restricted access on a roadway. Restricted access and raised medians increase roadway capacity by reducing the number of vehicle conflict points and improving traffic flows. Restricted access avoids loss of capacity caused by interruptions and disruptions to traffic flow resulting from vehicles coming onto or leaving the roadway.

The various LOS classifications for roadway segments are set forth in the table below. Caution should be used in applying the letter (A through F) delineators to levels of service, which for roadway segments are qualitative rather than quantitative assessments of performance characteristics. While a helpful qualifier of roadway performance, the volume to capacity ratio provides a better quantitative assessment of roadway operating conditions.

Table III-9
Level Of Service Description
Mid-Link and Uninterrupted Flow

Level of Service	Quality of Traffic Flow	Volume/Capacity Ratio
A	Free flowing, low volumes, high speed; speed not restricted by other vehicles in the traffic stream.	0.00 - 0.60
B	Operating speeds and maneuverability in the range of stable flow, but presence by other traffic begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.	0.61 - 0.70
C	Operating speeds and maneuverability significantly controlled by other traffic Quality of operations still within the range of stable flow.	0.71 - 0.80
D	Tolerable operating speeds, high traffic density but stable flows; often used as design standard in urban areas. At this level, speed and freedom to maneuver are severely restricted. Drivers experience general discomfort and inconvenience.	0.81 - 0.90
E	At or near maximum traffic volume a roadway can accommodate during peak traffic periods. Low speed but uniform traffic density. "Maximum Capacity". Highly susceptible to breakdowns in flow.	0.91 - 1.00
F	System failure; long queues of traffic; unstable flows; stoppages of long duration; traffic volume and speed can drop to zero; traffic volume will be less than the volume which occurs at Level of Service E.	Not Meaningful

Source: Highway Capacity Manual, Transportation Research Board - Special Report 209, National Academy of Science, Washington, D.C. 1997.

Intersections represent the most constrained portion of the roadway network. The Highway Capacity Manual expresses the Level of Service at an intersection in terms of delay or waiting time to get through the various intersection approaches. For signalized intersections, average total delay per vehicle is used to determine the LOS. Intersection LOS is defined quantitatively in the following table. A more detailed discussion of LOS values can be found in the General Plan Traffic Study in the Program EIR Technical Appendices.

Table III-10
Level Of Service Descriptions
Signalized Intersections

Level of Service	Average Total Delay Per Vehicle (Seconds)
A	0 to 10.00
B	10.01 to 20.00
C	20.01 to 35.00
D	35.01 to 55.00
E	55.01 to 80.00
F	80.01 and up

The following table describes the various capacity values assigned for differing roadway sizes and levels of service. Capacity is generally defined as the number of vehicles that may pass over a section of roadway in a given time period under prevailing conditions. Capacities of roadways are most restricted by intersection design and operation, which are discussed further below. Typically, the PM peak hour is the heaviest traffic flow of the day. However, it should be noted that in the planning area the peak daily traffic volumes are spread across a greater time period, rather than the typical AM and PM peak periods.

Table III-11
Level of Service Volumes/Capacity Values
(Average Daily Trips - ADT)

Facility Type	A (60%)	B (70%)	C (80%)	D (90%)	E (100%)
2-Lane	8,400	9,800	11,200	12,600	14,000
2-Lane (w/Ctr. Median)	9,600	11,200	12,800	14,400	16,000
3-Lane (w/Ctr. Median)	14,400	16,800	14,200	21,600	24,000
4-Lane (w/Ctr. Median)	19,200	22,400	25,600	28,800	32,000
5-Lane (w/Ctr. Median)	25,200	29,400	33,600	37,800	42,000
6-Lane (w/Ctr. Median)	31,200	36,400	41,600	46,800	52,000

Source: Palm Desert Comprehensive General Plan Traffic Report. September 2003.

Acceptable Levels-of-Service (LOS)

The Circulation Element establishes and directs actions to maintain acceptable levels of service on all community roadways. The City traffic engineers and transportation planners strive to provide optimum roadway operating conditions while controlling the costs of building and maintaining infrastructure to assure those conditions. For many years, LOS C was considered the desirable and optimal level of traffic volume on any given roadway, and continues to be the goal in Palm Desert.

However, as traffic volumes increase LOS C represents a standard that is progressively more difficult and costly to achieve in urban areas. For peak operating periods, LOS D and/or a maximum volume to capacity ratio of 0.90 is provisionally considered the generally acceptable service level. With the planned roadway improvements set forth in the Circulation Element and the General Plan EIR and associated traffic study, buildout of the City General Plan is not expected to result in any intersections operating at levels worse than LOS D. Exceedance of the City's LOS C goal is only acceptable where maximum feasible intersection improvements have been implemented.

Average Daily Traffic Volumes

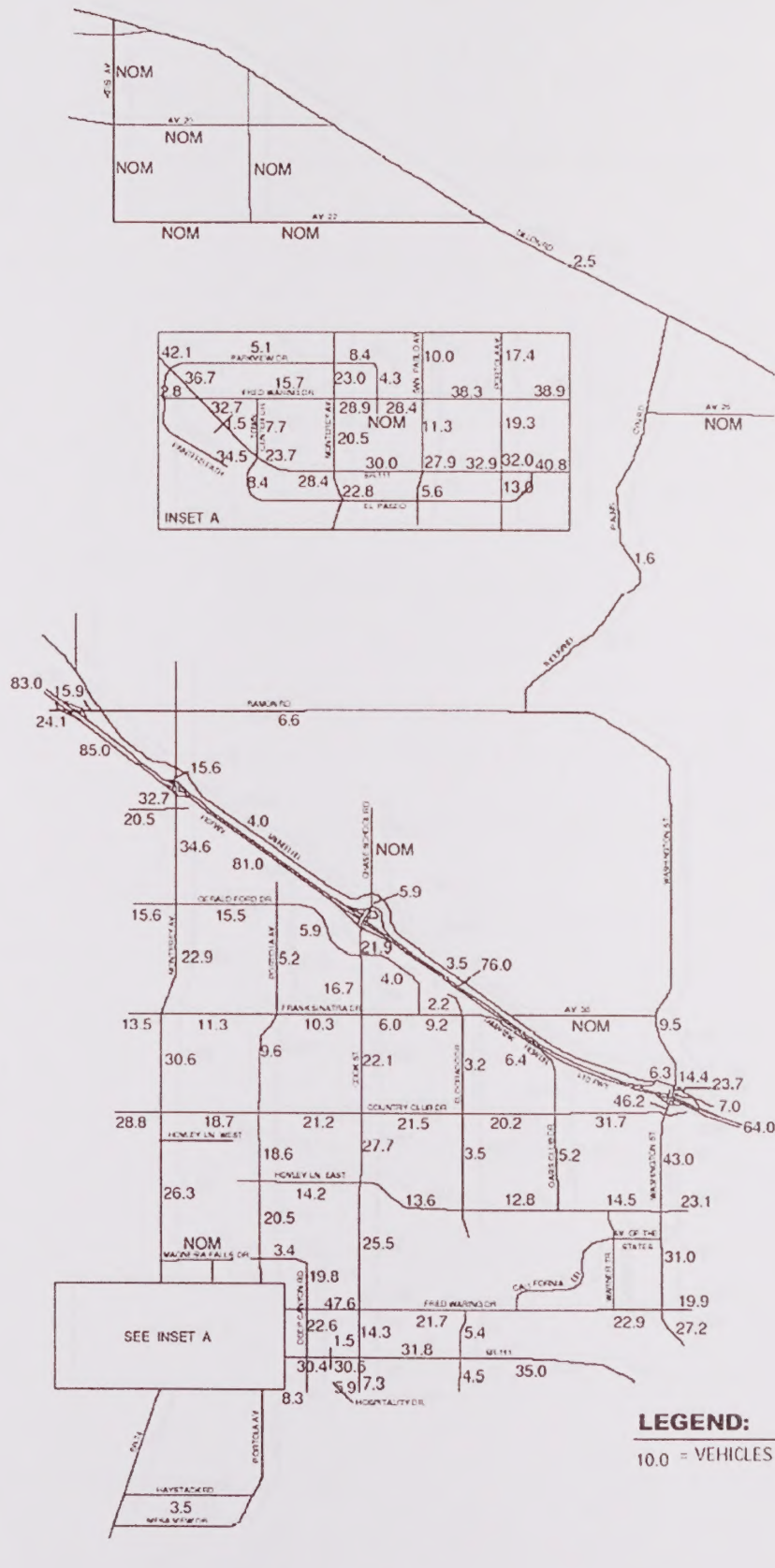
Traffic volumes are generally presented as Average Daily Trips (ADT) or the total number of vehicles that travel a defined segment of roadway over a twenty-four hour period. A variety of traffic data were collected for the General Plan update, including peak hour intersection counts, in 1999 and 2002. Sources of data included the City, the Coachella Valley Association of Governments (CVAG) CalTrans, and a variety of project-specific traffic studies.



The tables and exhibits below provide the Average Daily Traffic Volumes (ADT) for the current (1998-2002) period for the General Plan designated roadways. ADT is a useful "benchmark" number for determining various appropriate roadway configurations and design aspects. The peak hour information, which is the highest volume of traffic to pass over a segment of roadway during an hour period, is also a useful means of

determining a roadway's capacity and, indirectly, intersection levels of service. Traffic counts at intersections have provided a more detailed picture of present and future operating conditions at these intersections.





TERRA NOVA®

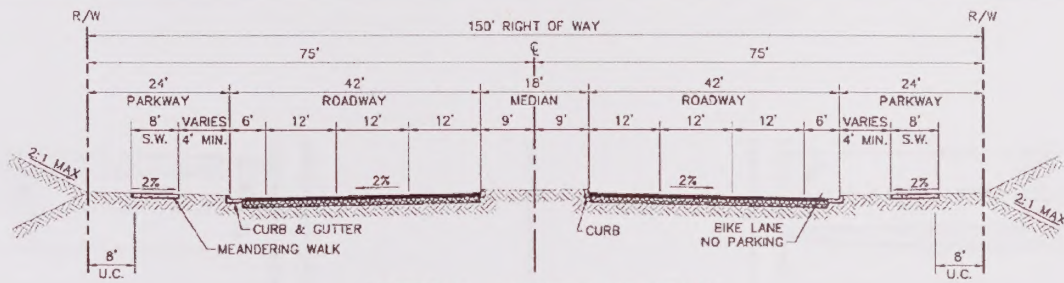
Planning & Research, Inc.

Palm Desert General Plan Existing ADT Volumes City of Palm Desert



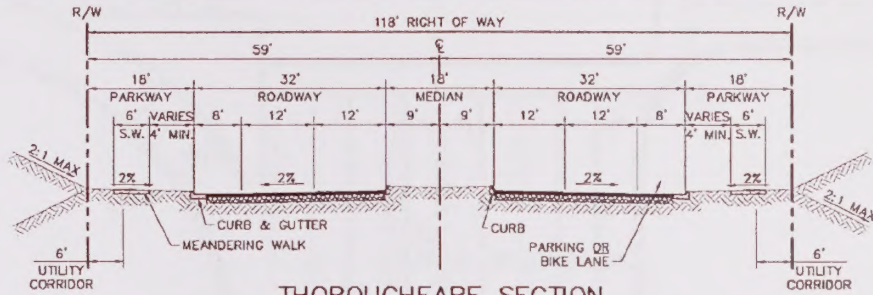
Exhibit

III-3



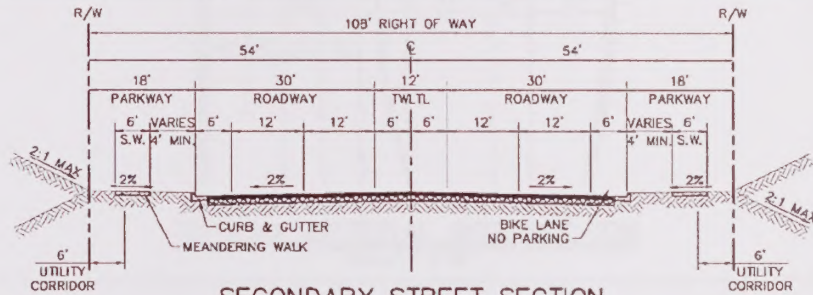
ARTERIAL STREET SECTION

SCALE: 1" = 10'



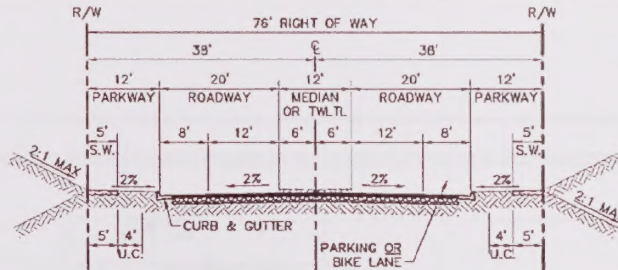
THOROUGHFARE SECTION

SCALE: 1" = 10'



SECONDARY STREET SECTION

SCALE: 1" = 10'



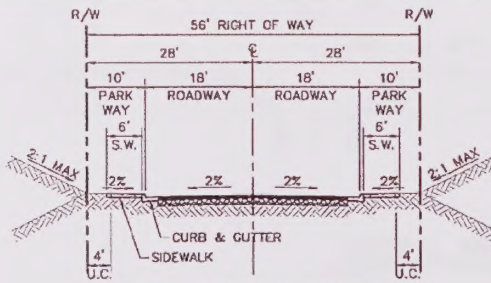
COLLECTOR STREET SECTION

SCALE: 1" = 10'

LEGEND:

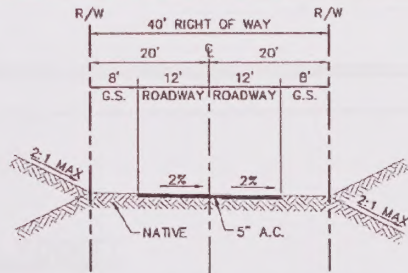
TW.L.T.L.	TWO WAY LEFT TURN LANE
U.C.	UTILITY CORRIDOR*
S.W.	SIDEWALK
G.S.	GRADED SHOULDER
ASPH.	ASPHALT PAVING
AGG.	AGGREGATE BASE
R/W	RIGHT OF WAY LINE
CL	STREET CENTERLINE

* UTILITY CORRIDOR IS FOR AT GRADE OR ABOVE GROUND FACILITIES. (I.E. WATER METERS, TELE. RISERS, ETC....)



LOCAL STREET SECTION

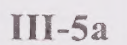
SCALE: 1" = 10'



RURAL STREET SECTION

SCALE: 1" = 10'





PALM DESERT TRAFFIC MODEL

Regional and Local Traffic Model

The Palm Desert Traffic Model (PDTM) has been developed as a pure focused version of the Coachella Valley Area Transportation Study (CVATS) model, providing a more detailed transportation analysis zone (TAZ, see below) structure and a more detailed roadway network within the planning area boundaries. The CVATS model was developed by the Southern California Association of Governments (SCAG) and is based upon the TRANPLAN software model. CVATS is a large area network model developed for regional transportation planning. It breaks the Valley study area into relatively large zones (see Zone System, below), and uses a generalized land use designation system and trip generation/distribution/assignment procedures.

The PDTM uses the same procedures as the CVATS model but on a more refined level. The General Plan traffic modeling process consists of defining the traffic analysis zones (TAZ) and the roadway network, establishing efficient/logical traffic routes, collecting land use and socio-economic data on each TAZ, calculating trip generation in each TAZ, distributing traffic and its assignment to individual road segments. Each major component of the PDTM is described below.

Zone and Network System

The regional CVATS traffic model divides the General Plan planning area into the major portion of 68 traffic analysis zones (TAZs). The PDTM further divides the planning area into a total of 331 TAZs, following CVATS zone boundaries, General Plan land use boundaries, digital street centerlines and other GIS data, thereby greatly increasing the detail of the analysis. Traffic volumes have been generated for each TAZ based upon the mix and acreage of each land use in each TAZ, with land uses being factored into the model as either trip “productions” or “attractions”. Traffic from outside the planning area is based upon the larger scale, regional CVATS TAZ structure, and interacts with planning area traffic at various cordon stations located along planning area boundaries. A forecast of traffic volumes is produced by the model and is based upon the TAZ system.

The model then loads the traffic onto the roadway network, and approximates how actual traffic enters and utilizes the local roadway system. The roadway network focuses on major streets and generally excludes local streets. Traffic generated in each zone is placed on the network at primary connectors, called “centroids”, identified by the model.

The model also considers a variety of roadway characteristics, including the type of roadway, free-flow speeds, and hourly travel per lane. Likely network operations are also refined by speed adjustments developed to increase sensitivity to roadway constraints (Please refer to the Circulation section of the Palm Desert General Plan EIR and technical report for an illustration of the TAZ’s and a complete breakdown of the various land uses within each TAZ).

The current land use patterns were used as the basis for the Palm Desert General Plan TAZ system, and is tailored specifically to the City and planning area in order to provide the most accurate data possible. The model distributes the projected volume of traffic that will occur due to the buildout of the General Plan land use plan and factors growth in other areas of the valley. From this information the design requirements to maintain acceptable traffic flows are determined.

Depending upon the level of land use integration within each TAZ, traffic generated within each TAZ may stay within the TAZ or cross TAZ boundaries, which typically requires travel on a higher capacity street such as a collector or arterial roadway. TAZs are somewhat artificial planning subareas typically defined by major roadways. The interaction of land uses within each TAZ is a measure of land use efficiency, depending on the degree to which development generates local traffic or requires extended use of the arterial roadway network.

Trip Generation

Vehicle trips generated within each TAZ of the modeling area are based on land use data as designated by existing land uses and the General Plan Land Use Element. The CVAG CVATS model breaks down land uses into 13 variables, ranging from very low density residential to commercial, industrial and institutional uses. A total of 15 land use categories were used in the PDTM analysis, including one for public utilities and one for open space lands.

The CVAG CVATS model was used to derive the average trip generation rates per the various land uses, and were modified for City-specific application. The total number of vehicle trips produced in or attracted to a geographic area is directly related to the land use and demographic variables found in each TAZ. The model estimates the number of peak season vehicle trips that will be produced on an average weekday for each analysis zone. Daily trip rates and percentages are derived from the CVAG 1995 Origin and Destination Survey data, as well as from trip generation data from the 1997 CVATS model validation.

The PDTM trip generation model estimates peak season vehicle trips produced on an average weekday. The model uses four separate “home-based” trip definitions and one “non-home-based”. Home-based trips either originate or are destined for the home. The non-home-based trip type refers to trips that do not originate and are not destined for home (e.g., traveling from work directly to dinner). The actual trip production rates, that is trips per land use type, are taken directly from the CVATS model. The model rates and procedures have been tested against the actual CVATS inputs, indicating close correspondence between the two and validating the trip generation portion of the model.

Trip Distribution and Traffic Assignment

Once the City and planning area have been broken down into the various TAZs, and the trip generation for each has been calculated, the trip distribution and assignment functions of the City traffic model can then be implemented. This next step involves providing a general directional distribution of these trips and then finally assigning them to specific streets. As mentioned above, trips are either attractions or productions; that is, they are either drawing trips into the TAZ or are exporting trips. Typically, this distribution of trips is accomplished using a “gravity distribution model”, based on the formula that the distribution of trips is proportional to the “attractiveness” of the land use and the distance (or travel time) from the point of trip production. Each type of trip or trip purpose has its own specific travel time distribution function or curve.

Traffic is assigned to the roadway network over four distinct time periods, including AM peak, Mid-day, PM peak and Nighttime. Traffic assignment involves the specific route paths of the various trip interchanges between TAZs identified in the trip distribution process. The end result forecasts of daily traffic volumes yield the aggregate assignment of trips to roadways between and connecting TAZs throughout the City. The traffic assignment process for the General Plan traffic model has also been adapted from procedures used in the valley-wide CVATS model.

CURRENT CONDITIONS

Within the urbanized and developing areas of the City and planning area (ca 2003), the roadway network has been constructed and conveying traffic. The following briefly discusses the major regional and local roadways serving the planning area.

Regional Roadways

State Highway 111 and U.S. Interstate-10 are the two primary regional routes connecting the City to the rest of the Coachella Valley. State Highway 111 begins at its juncture with Interstate-10 several miles west of Palm Springs and extends southeast to Brawley in the Imperial Valley. Interstate-10 connects the Los Angeles region with Arizona and other cities and states to the east. State Highway 74 extends south and west from Highway 111 to the mountain communities in the Santa Rosa and San Jacinto Mountains and western Riverside County. Together, these three important roadways provide regional, interstate and international connections for the City and the Coachella Valley. Each of these regional facilities is briefly discussed below.

State Highway 111

State Highway 111 has been built along the old Bradshaw Trail, which extended along the base of the Santa Rosa Mountains. The trail was originally an Indian trade route and was revealed by the Maricopa Indians to the Europeans in 1821. In 1862, the trail was “discovered” by William David Bradshaw as the shortest route between the California coast and gold mines near the Colorado River, and it became known as the Bradshaw Trail (see Archaeological and Cultural Resources Element). While still holding its state highway status, this roadway has become more important as an intra-regional connector serving the local cities. Some through-traffic appears to have moved north to I-10, in response to congestion along Highway 111. In the City, most portions of this roadway have already been improved to its ultimate six-lanes divided design standard. Highway 111 serves a wide mix of commercial land uses.

Highway 74

Highway 74 extends from its intersection with Highway 111 and connects the valley with communities in the Santa Rosa and San Jacinto Mountains, as well as southwestern Riverside and northern San Diego Counties. Within the City, this highway provides two travel lanes in each direction, with a striped center median to facilitate turning movements. Highway 74 right-of-way is variable near the City's southern limits, where it becomes a two-lane mountain route with limited passing lanes and turn-outs where the road passes through the mountains.

U.S. Interstate-10

Interstate-10 is currently built as a six to eight-lane divided freeway accessed from both loop and diamond interchanges spaced a minimum of one mile apart. I-10 provides essential inter-city and inter-regional access and is also a critical part of the local road network moving people and goods into and out of the Valley. Direct City access to I-10 is currently provided through interchanges with Bob Hope Drive, Monterey Avenue, Cook Street and Washington Street.

Local Major Roadways

The City has developed and maintains an extensive arterial roadway network, which, in addition to the regional facilities serving the community, also serves both local and inter-city traffic. The City road network has been built essentially along a north-south grid, with interconnections with major arterials passing through adjacent jurisdictions. The location of trip attractors along these roads or the convenience they provide in traversing through the City varies with each road.

Frank Sinatra Drive

Frank Sinatra Drive is an existing east-west roadway designated as an "Arterial " on the City General Plan, within a variable 100 to 138 foot right-of-way. This roadway is currently improved to provide two lanes in each direction, separated by a median island. East of El Dorado Street this roadway becomes Tamarisk Row Drive and is designated as a "Secondary" one travel lane is provided in each direction as far south as Oasis Street.

Portola Avenue

Portola Avenue is an existing north-south roadway designated as an "Arterial" from US I-10 to the Whitewater River, where it transitions to a "Thoroughfare" with a 118 foot right-of-way. That portion occurring north of Country Club Drive is currently improved to provide two lanes in each direction, separated by a median island. Plans call for the extension of Portola Avenue north and the construction of an interchange with Interstate-10.

Cook Street

Cook Street is an existing four-lane, median island divided roadway, which extends south from the Cook Street/Interstate-10 interchange. Cook Street is designated as an "Arterial" on the City General Plan with a variable right-of-way of up to 150 feet. This roadway provides important freeway access into the City's Cook Street business park district and will be a primary access to the new Palm Desert Campus of the California State University and the University of California.

Monterey Avenue

Monterey Avenue is a six-lane roadway north of Dinah Shore Drive and a four-lane roadway to the south. Monterey Avenue is designated as an Arterial with a variable right-of-way of up to 150 feet north of Highway 111. Monterey Avenue serves as the primary gateway to the City from Interstate-10 and also serves the community of Thousand Palms, extending north to Ramon Road.

Dinah Shore Drive

Dinah Shore Drive is an east-west road currently (2002) providing full improvements west of Monterey Avenue, and limited improvement east of this road. Dinah Shore Drive is designated as an "Arterial" west of Portola Avenue, and continues west as a segment of the Mid-Valley Parkway to become Mesquite Road and provide express access to the Palm Springs International Airport. East of Portola Avenue, Dinah Shore Drive continues as a "Thoroughfare" southeast parallel with the UPRR/I-10 corridor, continuing east between Gerald Ford Drive and the lines of the Union Pacific Railroad.

Gerald Ford Drive

Gerald Ford Drive is an existing east-west roadway designated as an "Arterial" west of Cook Street and as a "Secondary" east of Cook Street. West of Portola Avenue, Gerald Ford Drive is improved to provide two lanes in each direction, separated by a median island. East of Portola Avenue and extending to Cook Street, Gerald Ford Drive is constructed to provide one travel lane in each direction. On the west, Gerald Ford Drive terminates at Date Palm Drive in Cathedral City, and on the east this roadway continues east of Cook Street and turns south to terminate at Frank Sinatra Drive.

Varner Road

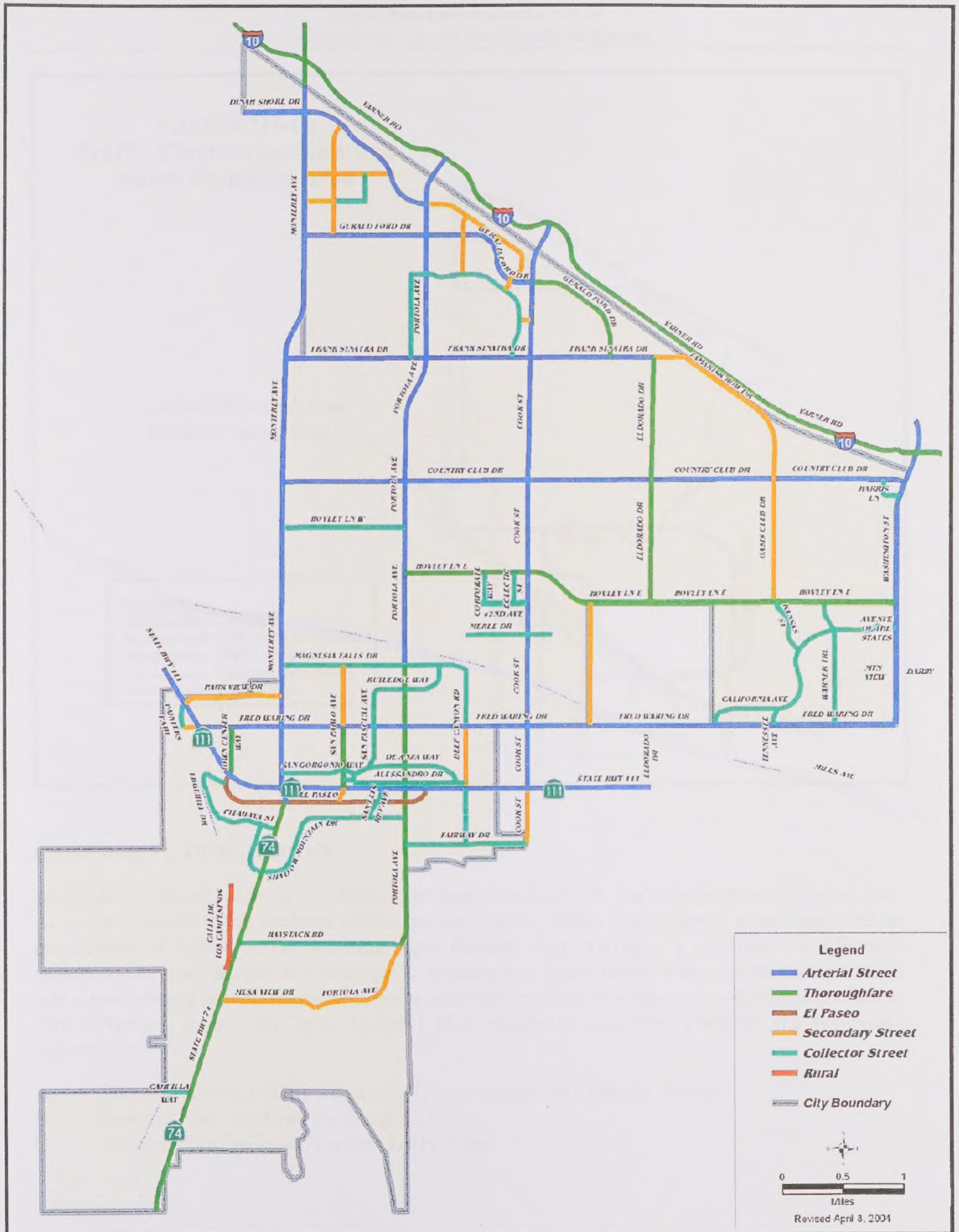
Varner Road is an existing two lane commercial/industrial collector located immediately north of and parallel with US Interstate-10. Varner Road is designated as a "Thoroughfare" in the City General Plan and as a "Secondary" on the Riverside County General Plan. It is planned to ultimately provide a divided four-lane, east-west roadway. Varner Road extends from just west of Palm Drive south of Desert Hot Springs, to the Indio city limits. In the planning area, Varner Road provides important freeway linkage and frontage for residential, commercial and industrial development extending from Rio del Sol (Bob Hope Drive, extended) southeast to Indio. Varner Road also facilitates important interconnections with Interstate 10, including the interchanges at Bob Hope Drive, Monterey Avenue, Cook Street and Washington Street.

Fred Waring Drive

Fred Waring Drive serves as an important high-capacity intra-city connector, which extends east to the City of Indio. Within the planning area, Fred Waring is being constructed as a six-lane "Arterial" with major portions of this ultimate width fully improved from Deep Canyon to Highway 111. Fred Waring Drive provides important alternative east-west access to commercial districts on the west, to the College of the Desert and Palm Desert High School west of Cook Street, and to the east to serve the Palm Desert Country Club and Bermuda Dunes area east and west of Washington Street.

Country Club Drive

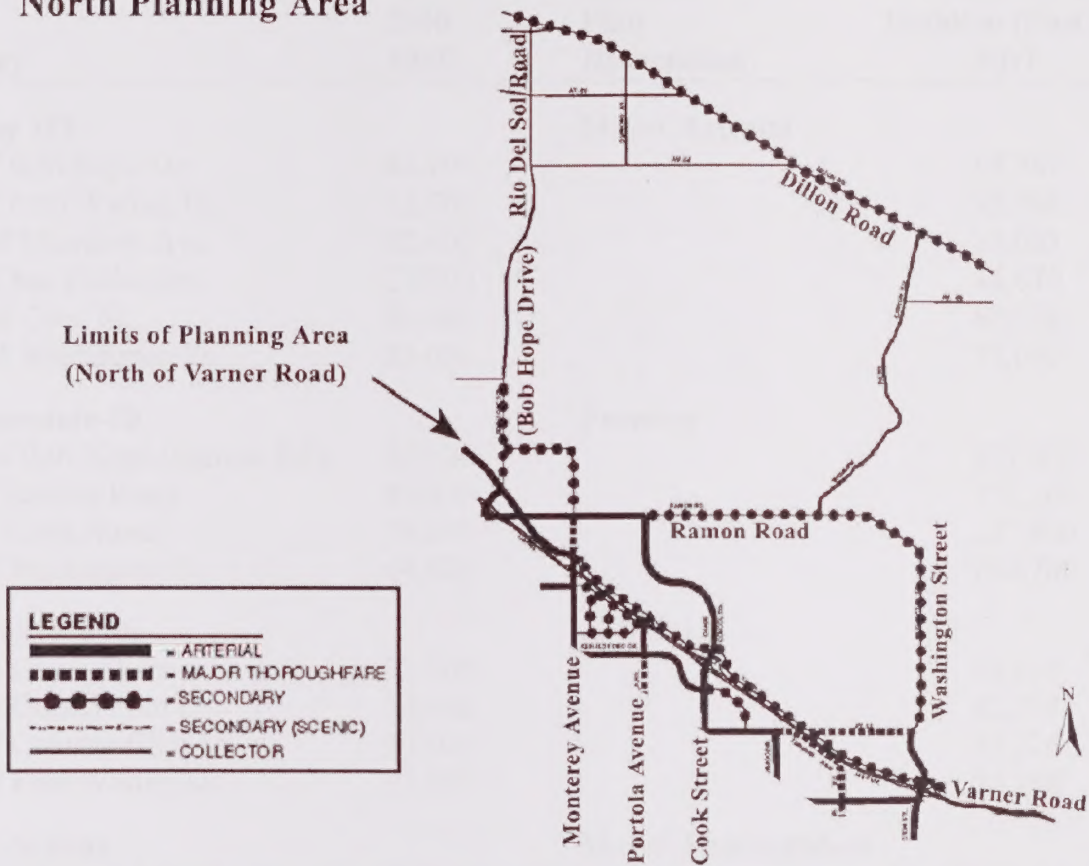
Country Club Drive extends to just east of the Bermuda Dunes Airport at Jefferson Street. The western terminus of this roadway is at Highway 111 in Rancho Mirage. Within the planning area, Country Club Drive is improved as a four-lane roadway, and is reduced to a two-lane roadway east of Washington Street. Country Club Drive is designated as an "Arterial" roadway between Washington Street and Monterey Avenue.



Revised April 8, 2004



Exhibit III-6a Traffic Circulation Network North Planning Area



GENERAL PLAN BUILDOUT

Analysis of current roadway conditions has been conducted in the General Plan planning area. As a direct result of the analysis conducted on existing traffic and roadway conditions, and on projections of future traffic resulting from General Plan buildout, a roadway classification system has been developed and assigned to existing and future roads. This process has also taken into consideration special issues of concern and opportunities to enhance community circulation. The following table lists these General Plan roadways and also provides the following information:

- 2000-02 Average Daily Trips (ADT) and Volume to Capacity Ratios
- General Plan Roadway Designation.
- General Plan Buildout Average Daily Trips.

Table III-12
General Plan Roadway Analysis

Roadway	2000 ADT	General Plan Designation	General Plan Buildout (Post 2020) ADT
Highway 111		Major Arterial	
E of Bob Hope Dr.	42,100		68,587
E of Fred Waring Dr.	32,700		40,966
W of Monterey Ave	28,400		39,065
E of San Pablo Ave	27,900		48,670
W of Cook St.	30,500		62,028
W of Washington St.	35,000		72,030
U.S. Interstate-10		Freeway	
W of Bob Hope (Ramon Rd.)	83,000		211,000
S of Ramon Road	85,000		221,100
E of Cook Street	76,000		227,800
E of Washington St.	64,000		204,700
Monterey Avenue		Arterial	
N of Dinah Shore	32,700		64,860
N of Gerald Ford Dr.	34,600		42,238
N of Country Club Dr.	30,600		33,226
N of Fred Waring Dr.	23,000		32,388
Portola Avenue		Major Thoroughfare	
S of Highway 111	13,000		12,955
N of Highway 111	19,300		24,275
N of Fred Waring Dr.	17,400		24,266
N of Magnesia Falls Dr.	20,500		28,358
N of Country Club	9,600		39,495
N of Frank Sinatra	5,200		30,948
N of Gerald Ford	-----		48,234
Cook Street		Arterial	
N of Highway 111	14,300		35,707
N of Fred Waring Dr.	25,500		37,263
N of Country Club	22,100		46,389
N of Frank Sinatra	16,700		60,648
N of Gerald Ford	21,900		61,962
N of US I-10 (Chase School Rd.)	5,900		46,116
Washington Street		Arterial	
N of Highway 111	27,200		46,695
N of Fred Waring Dr.	31,000		45,151
N of Hovley Ln (Ave 42)	43,000		43,769

N of Country Club	46,200	74,786
N of US I-10	23,700	72,713
N of Varner Road	9,500	62,745
Fred Waring Dr.		Arterial
E of Highway 111.	15,700	24,471
E of Monterey Ave	28,900	38,979
E of San Pablo Ave	38,300	40,991
W of Cook St.	47,600	49,749
W of Washington St.	21,700	54,770
Country Club Drive		Arterial
W of Monterey	28,800	33,380
W of Portola Ave.	18,700	25,025
W of Washington St.	31,700	39,771
Frank Sinatra Drive		Arterial
W of Monterey Ave	13,500	24,918
W of Portola Ave	11,300	27,522
W of Cook Street	10,300	26,142
Gerald Ford Drive		Arterial
W of Monterey Ave	15,600	39,837
W of Portola Ave	15,500	43,633
W of Cook St.	5,900	34,428
E of Cook St	6,000	16,215
Dinah Shore Drive		Arterial
W of Monterey Ave	20,500	46,798
E of Monterey Ave	-----	37,127
Ramon Road		Major Arterial
E of US I-10	15,900	28,475
E of Varner Road	6,800	28,200
E of Monterey Ave	6,600	15,819
Varner Road		
E of Monterey Ave	4,000	29,205
E of Cook (Chase School Rd)	3,500	37,399
E of Washington St	7,000	22,481

Source: Palm Desert General Plan Traffic Analysis. September 2003.

Intersections: Arbiters of Capacity

The capacities of the various roadway segments within the General Plan planning area are defined by several variables, including the number of travel lanes, the number of access points onto the roadway, and the roadway geometry, i.e. is it divided or undivided, the width of travel lanes, and other constraints. However, the most constraining and defining portions of the roadway network are intersections, which are typically the ultimate arbiters of capacity. Detailed analysis and recommendations regarding intersection improvements are generally outside the realm of the General Plan, however, analysis of several key intersections provide important

perspective on the constraints expected at these locations.



As part of the General Plan analysis, fifty-three (53) intersections were evaluated to establish the projected average total delay per vehicle and the anticipated levels of service for each intersection in the AM and PM peak hours. The General Plan Traffic Report found in the back of the General Plan EIR also sets forth the intersection geometries that must ultimately be constructed at each location.

Currently (2002), all of these intersections are operating at acceptable levels of service. As shown below, each of the fifty-three intersections is projected to operate at LOS D or better in the buildout (Post 2020) condition. These levels of service assume optimized signal timing and provide appropriate time for pedestrian crossings.

Table III-13
Intersection Impact Analysis
Current Conditions & Post 2020

Intersection	Traffic Control	Current Conditions		Preferred Alternative GP	
		Delay (sec.) AM/PM	LOS AM/PM	Delay (sec.) AM/PM	LOS AM/PM
College of the Desert (NS) at:					
• Fred Waring Dr.(EW)	TS	17.6 / 23.6	B / C	27.2 / 23.8	C / C
Cook St. (NS) at:					
• Country Club Dr.(EW)	TS	32.6 / 27.8	C / C	26.5 / 30.3	C / C
• Frank Sinatra Dr.(EW)	TS	32.6 / 34.1	C / C	34.8 / 40.3	C / C
• Fred Waring Dr.(EW) ³	TS	---- ³ / 56.1	F / E	33.9 / 44.8	C / D
• Gerald Ford Dr.(EW)	TS	25.0 / 24.0	C / C	43.5 / 50.1	D / D
• Hovley Ln. E.(EW)	TS	27.5 / 32.1	C / C	38.2 / 49.4	D / D
• I-10 Fwy.EB Ramps (EW) ¹	TS	21.6 / 21.1	C / C	19.5 / 28.8	B / C
• I-10 Fwy.WB Ramps (EW)	TS	8.5 / 10.2	A / B	11.6 / 14.2	B / B
• SR-111 (EW) ²	TS	33.0 / 33.2	C / C ²	37.9 / 34.7	D / C
Country Club Dr.(NS) at:					
• Oasis Club Dr. (EW)	TS	18.7 / 16.8	B / B	31.7 / 37.4	C / D
Deep Canyon Rd.(NS) at:					
• Fred Waring Dr.(EW)	TS	---- ³ / ---- ³	F / F	33.4 / 33.0	C / C
• SR-111 (EW)	TS			32.9 / 33.1	C / C
Desert Crossing (NS) at:					
• SR-111 (EW) ²	TS	26.5 / 40.0	C / D	34.3 / 34.9	C / C
El Dorado Dr. (NS) at:					
• Country Club Dr.(EW)	TS	23.6 / 24.3	C / C	31.1 / 33.7	C / C
• Frank Sinatra Dr.(EW)	TS	10.3 / 10.2	B / B	17.6 / 19.1	B / B
• Hovley Ln. E.(EW)	TS	16.1 / --- ³	C / F	12.3 / 23.0	B / C
• SR-111 (EW)	TS	23.3 / 24.6	C / C	32.3 / 28.3	C / C
El Paseo/Town Center Wy.(NS) at:					
• SR-111 (EW)	TS	30.7 / 32.8	C / C ²	33.5 / 35.0	C / C
El Paseo/Cabrillo Ave.(NS) at:					
• SR-111 (EW)	TS	23.3 / 26.2	C / C	27.5 / 33.4	C / C
Frank Sinatra Dr. (NS) at:					
• Gerald Ford Dr.(EW)	TS	11.6 / 12.4	B / B	10.5 / 15.8	B / B

Table III-13, Continued
Intersection Impact Analysis
Current Conditions & Post 2020

Intersection	Traffic Control	Current Conditions		Preferred Alternative GP	
		Delay (sec.) AM/PM	LOS AM/PM	Delay (sec.) AM/PM	LOS AM/PM
Hospitality Dr. (NS) at:					
• SR-111 (EW)	TS	20.0 / 20.5	B / C	28.6 / 26.3	C / C
I-10 EB Ramps (EW) at:					
• Ramon Rd./Bob Hope Dr (NS)	TS	17.4 / 24.0	B / C	21.3 / 32.2	C / C
I-10 WB Ramps (EW) at:					
• Ramon Rd./Bob Hope Dr (NS)	TS	40.0 / --- ³	E / F	19.9 / 35.5	B / D
Monterey Ave. (NS) at:					
• Country Club Dr.(EW)	TS	27.9 / 34.0	C / C	29.9 / 31.7	C / C
• Dinah Shore Dr.(EW) ²	TS	16.1 / 17.3	B / B	35.0 / 43.8	C / D
• Frank Sinatra Dr.(EW)	TS	22.3 / 23.3	C / C	24.5 / 26.3	C / C
• Fred Waring Dr.(EW)	TS	23.9 / 32.8	C / C	26.2 / 33.4	C / C
• Gerald Ford Dr.(EW)	TS	25.8 / 33.0	C / C	33.5 / 29.7	C / C
• I-10 EB Ramps (EW)	TS	16.0 / 33.0	B / C	24.4 / 31.7	C / C
• I-10 WB Ramps (EW)	TS	23.4 / 21.7	C / C	25.4 / 17.3	C / B
• Park View Dr.(EW)	TS	20.7 / 34.6	C / C	21.5 / 24.4	C / C
• SR-111 (EW)	TS	25.6 / 44.7	C / D	33.1 / 34.9	C / C
Oasis Club Dr. (NS) at:					
• Hovley Ln (EW) 42nd. Ave.	TS			31.9 / 31.5	C / C
Park View Dr./Painters Path (NS) at:					
• SR-111 (EW)	TS	22.6 / 28.7	C / C	26.5 / 28.3	C / C
Plaza Way (NS) at:					
• SR-111 (EW)	TS	18.6 / 30.2	B / C	19.8 / 29.9	B / C
Portola Ave. (NS) at:					
• I-10 EB Ramps (EW)	----	----	----	24.4 / 31.7	B / C
• Country Club Dr.(EW)	TS	25.7 / 33.9	C / C	29.9 / 34.1	C / C
• Frank Sinatra Dr.(EW)	TS	14.4 / 17.6	B / C	25.9 / 31.3	C / C
• Fred Waring Dr.(EW)	TS	27.4 / 32.8	C / C	25.5 / 28.8	C / C
• Gerald Ford Dr.(EW)	TS	11.6 / 12.3	B / B	26.3 / 31.4	C / C
• Hovley Ln.E.(EW)	TS	20.7 / 18.3	C / B	20.2 / 25.2	C / C
• Magnesia Falls Dr. (EW)	TS	25.9 / 27.6	C / C	34.6 / 30.0	C / C
• SR-111 (EW)	TS	26.5 / 31.3	C / C	33.8 / 29.1	C / C
San Luis Rey (NS) at:					
• SR-111 (EW)	TS	22.5 / 22.6	C / C	30.0 / 24.8	C / C

Table III-13, Continued
Intersection Impact Analysis
Current Conditions & Post 2020

Intersection	Traffic Control	Current Conditions		Preferred Alternative GP	
		Delay (sec.) AM/PM	LOS AM/PM	Delay (sec.) AM/PM	LOS AM/PM
San Pablo (NS) at:					
• Fred Waring Dr. (EW)	TS	24.9 / 26.8	C / C	27.5 / 34.0	C / C
• SR-111 (EW)	TS	26.6 / 27.2	C / C	30.1 / 33.0	C / C
SR-111 (NS) at:					
• Fred Waring Dr.(EW)	TS	31.0 / 34.5	C / C	28.9 / 36.2	C / D
Varner Rd. (NS) at:					
• I-10 WB Ramps (EW)	TS	16.6 / 16.6	B / B	13.5 / 11.8	B / B
Washington St. (NS) at:					
• Country Club Dr.(EW) ¹	TS	33.7 / 49.1	C / C	33.1 / 32.7	C / C
• Fred Waring Dr.(EW) ¹	TS	24.5 / 26.2	C / C	28.3 / 33.2	C / C
• Hovley Ln:E.(EW) ²	TS	44.5 / 69.6	D / E	31.1 / 34.8	C / C
• Varner Rd.(EW) ¹	TS	35.0 / 26.3	C / C	32.5 / 34.7	C / C

Notes

- 1.) Assumes LOS C improvements as set forth in the General Plan Traffic Report (see General Plan EIR).
- 2.) Pedestrians assumed not to occur on every cycle.
- 3.) Intersection will periodically operate at LOS F, with related delays.
- 4.) Intersection/Interchange not yet constructed.

GENERAL PLAN ROADWAY CLASSIFICATIONS

Each major roadway in the planning area has been assigned a specific design classification based upon existing and projected traffic demands generated by buildout of the General Plan. The need for and appropriateness of each classification has been based upon modeled future traffic volumes and overall community design goals set forth in the General Plan. Each of the classifications corresponds with the street cross sections illustrated in this element. Certain refinements may be required when securing right-of-way and constructing improvements at specific locations.

SPECIAL FOCUS ISSUES

Several traffic/circulation special focus areas have been identified through the General Plan update process. Including, but going beyond, increased traffic volumes and infrastructure needs associated with future traffic, these transportation issues are also appropriately evaluated in the General Plan. These include inadequate planned roadway improvements in adjoining jurisdictions, assuring all-weather access for the community, securing additional right-of-way for future improvements, making provisions for pedestrians, bicycles and golf carts, optimizing use of regional airports and rail lines, and other issues. Each of these areas is briefly discussed below.

Highway 111 Jurisdiction

The City has considered assuming full responsibility for the operation and maintenance of State Highway 111 within the city limits. Rancho Mirage has assumed control for its portion of Highway 111 and Palm Desert's assumption of control would allow unfettered coordination and cooperation on Highway 111. City control of this roadway would also allow the city to be more responsive to maintenance and corrective measures that sometimes must be taken to assure safe and efficient operation.

Portola Avenue/US Interstate-10 Interchange

The construction of a US Interstate-10/Portola Avenue interchange is a priority transportation project, which will involve aligning the north end of Portola Avenue to cross I-10 at a right angle and interconnect with Varner Road on the north. The City, County and CalTrans shall continue to cooperate and coordinate in the planning and development of this interchange.

Gerald Ford Drive at University Park

Gerald Ford Drive is expected to be an important roadway servicing the California State University campus and the University of California graduate studies center. It will also serve the University Park area and the variety of land uses planned there. Preserving capacity and operating efficiencies, especially as they relate to facilitating I-10 traffic, will be essential to adequately service this future activity area.

Monterey Avenue/Interstate-10 Interchange

This interchange, which is an important gateway to the City, provides limited opportunities for expansion. Future study of options for increasing capacity and enhancing efficiency of this interchange should be a priority.

Monterey Avenue Joint Planning

The city has developed a close working relationship with the City of Rancho Mirage in the planning and construction of improvements on Monterey Avenue. Areas where continued coordination is essential include location of signalized intersection and access points, and provision of adequate right-of-way and street improvements to meet anticipated demand for capacity.

Highway 74 Access Control

The City has identified several locations along Highway 74 where additional traffic control appears warranted. Traffic coming onto this roadway from adjoining streets occasionally conflict with traffic already on the road. A variety of control measures should be investigated, including the construction of median islands in some areas to preclude left-turns onto Highway 74, and the addition of traffic signals where warranted.

All-Weather Access

Major drainages that affect roadway access both within the City and the planning area include the Whitewater River, Palm Valley Stormwater Channel, Deep Canyon Stormwater Channel, San Pascual Channel, Mid-Valley Stormwater Channel, Thousand Palms Flood Control Project and Thousand Palms Canyon Wash, cove neighborhoods and in areas north of Highway 111. The Whitewater River is the principle drainage affecting all-weather access in the City, with currently all-weather crossings existing at only Monterey Avenue.

Crossings of the Whitewater River at Portola Avenue and Cook Street are currently improved to pass through lower (less than 100-year) flow storms. The Whitewater River Crossing at Bob Hope Drive in Rancho Mirage is also all-weather. Emergency preparedness planning in the City should also consider the need for additional all-weather crossings.

All-weather access and roadway capacity are also affected by stormwater runoff, which is frequently conveyed by local streets into dedicated surface and sub-surface stormwater facilities. Areas of inadequate drainage can result in on-road ponding, unsafe conditions, and reduced accessibility and capacity.

Roadway Capacity Preservation

The construction and maintenance of roads is one of the most expensive public responsibilities. Rights-of-way for roads also create a substantial demand on limited land and can have adverse, as well as beneficial, impacts on adjoining property. Therefore, roadway design, operation and maintenance must be as cost-effective as possible. Along major arterial roadways, such as Highway 111, Monterey Avenue, Cook Street, Portola Avenue, Fred Waring Drive, Frank Sinatra Drive, Gerald Ford Drive, Dinah Shore Drive and others, access from adjoining properties should be controlled and limited. In more densely developed areas, limited access and median islands will also improve roadway operation for vehicles and pedestrians.

Pedestrian and Other Non-Motorized Users

Pedestrian and other non-motor circulation is encouraged in the City wherever possible. The provision of sidewalks, bike lanes and off-street trails is especially important along major roadways in the community. While sidewalks have been constructed in various parts of the City, in some areas their design and construction has been inconsistent, disjointed and unconnected. In future development, pedestrian safety and accommodation should be given emphasis equal to that currently given to automobile access. Off-street trails are addressed in greater detail in the Parks and Recreation Element of the General Plan.

Golf Cart Route System

As part of the overall evaluation and planning of the City circulation system, the General Plan identifies pathways along existing and future roadways connecting residential, recreational, commercial and other community amenities. As with on-street bike paths, cart path safety is of the utmost importance. Expanded golf cart usage can provide an enjoyable, convenient, economical and safe alternative to automobile use. State law requires that golf carts for street use be licensed, and are limited to routes posted at 35 mph or slower, although golf carts may be permitted on higher speed roadways with approval of appropriate engineering analysis. Approved golf cart routes are to be shown on an adopted plan, which also provides minimum design criteria, signage, and golf cart and operator requirements. See Exhibit III-9: Golf Cart and Bike Path Routes in the Parks and Recreation Element.

Securing Right of Way

The City has generally been able to secure right-of-way adequate to provide full-width mid-block roadway improvements, and has also been able to secure additional right-of-way along major arterials designated as scenic corridors. The need for expanded intersection improvements throughout the City, as evidenced in Table III-17 above, may in some instances require additional right-of-way be secured to provide for additional through and turning lanes. The greatest demand for additional right-of-way may be at future critical intersections, where dual left turn lanes and dedicated right turn lanes would be needed. Please see the General Plan Program EIR for critical intersection design standards and traffic-related technical information.

Parking and Access Facilities

In addition to issues associated with roadway capacity at mid-block and intersection locations, the City's roadway network can also be affected by the design and location of access drives and on-site parking facilities. The newer commercial developments in the City provide safe and efficient access and adequate parking to serve their customers. However, some older developments in the core commercial village area are limited in their ability to provide sufficient off-street parking. The needs for service and maintenance personnel must also be addressed in new and existing development. It is essential that new development, as well as projects undergoing redevelopment, be required to provide adequate on-site parking to meet the parking demand generated. Parking lot ingress and egress must also be thoughtfully controlled and consolidation encouraged to minimize disruption to traffic flow and facilitate the preservation of capacity, while assuring safety.

SunLine and Public Transportation

The provider of public transit service within the City of Palm Desert and the Coachella Valley is the SunLine Transit Agency was created in 1977 and has since evolved to provide a wide range of public transit service within the City and the Coachella Valley, carrying nearly 4 million passengers per year to work, shopping school and appointments in a service area of more than 360 square miles on its *SunBus* system. SunLine is required to have bus stops that comply with the federal Americans With Disability Act (ADA).

In addition to SunLine's fleet of new buses powered by compressed natural gas and other clean-burning fuels, SunLine is also integrating other innovative technologies and fuels into the local public transit system. In 2002 SunLine introduced a bus powered entirely by zero-emission fuel cell technology, sometime referred to as Non-Emission vehicles (NEVs). The Agency is also a leader in the implementation of photovoltaic systems to generate hydrogen as part a suite of zero-emission technologies. SunLine continues to be a test site for advanced clean air technology and alternative fuel vehicles, and is the winner of the National Clean Cities Award from the US Department of Energy.

Five bus routes currently (2002) provide primary service to the City and the General Plan planning area, and include the Lines 111, 50, 51, 70 and 31. Current and planned service routes for each are briefly described below:

Line 111

Line 111 runs seven days a week primarily along State Highway 111, between Indio and Palm Springs. In Palm Desert, Line 111 proceeds north from Highway 111 on Monterey Avenue and then proceeds west on Fred Waring Drive where it again proceeds west on Highway 111. The spacing between buses on the route, also known as "headway", is about every 25 minutes.

Line 50

Line 50 runs seven days a week along a route that includes Eisenhower Medical Center, south along Bob Hope Drive and east on Highway 111 to Town Center Way, east on Fred Waring Drive and south on San Pablo, then continuing east on Highway 111 to Cook Street, north to Country Club Drive and west to Bob Hope Drive. The Line 50 CSUSB Loop extends from the vicinity of Highway 111 and Monterey Avenue, proceeds north on Monterey and east on Frank Sinatra Drive to Cook Street and the new campus of the California State University San Bernardino. Headway on Line 50 is approximately 30 minutes.

Line 51

Line 51 runs Tuesday through Saturday and only in Palm Desert. Also known as the *Shopper Hopper*, Line 51 provides convenient public transportation throughout the City downtown shopping district. The route extends from about the intersection of El Paseo and Highway 111 (east of Portola Avenue), west along El Paseo, north on Monterey Avenue and through the Westfield Shoppingtown mall, north on Town Center Way, west on Fred Waring Drive to and through Desert Crossings and back along Highway 111 to Plaza Way, where it again connects with El Paseo. The headway on Line 51 is approximately 50 minutes.

Line 31

Line 31 serves the northern and central portions of Cathedral City, as well as the Monterey Avenue/Dinah Shore Drive shopping district and the community of Thousand Palms. The route operates Monday through Friday. Within the General Plan planning area, the route begins at the Tri-Palm Estates clubhouse and proceeds west on Ramon Road and north to serve residential neighborhoods in this area. It then proceeds southeast along Varner Road and then south on Monterey Avenue, west on Dinah Shore Drive and north on Bob Hope Drive to Ramon Road. Headway on this route is approximately 50 minutes.

Line 70

Line 70 serves the eastern portion of the planning area, connecting the La Quinta Cove area with US Interstate-10 with a route located primarily along Washington Street. The route operates seven days a week. Within the planning area, Line 70 extends north along Washington Street from Fred Waring Drive and completes a loop that includes Avenue 41, Yucca Way and Country Club Drive.

The agency also provides "Sun Dial" service, which consists of a fleet of small buses that offer curb-to curb service from home to destination. The *SunDial* is a valley-wide, ADA-compliant service providing curb to curb next day service that is wheelchair accessible. SunLine also operates the regional *SunLink* connection, which provides fast and comfortable freeway service between the Coachella Valley, Cabazon and the Inland Empire, with rail connections to Los Angeles and Orange Counties, Ventura County and San Diego via the *MetroLink* system.

SunLine Bus Rapid Transit (BRT) Route

SunLine has been developing the bus rapid transit or BRT concept for application in the Coachella Valley. The purpose of the BRT is to provide express service between Indio and Palm Springs, with a limited number of strategically selected stops along the route that could limit the travel time to one hour. Stops being considered within the planning area include the corner of Country Club Drive and Tamarisk Row Drive, the Palm Desert campus of CSUSB and at the future Agua Caliente Casino park and ride facility. Initially, the route will be tasked with two natural gas power buses.

However, SunLine is investigating a variety of other systems and the future right-of-way that is available and may be needed for a different version of the BRT system. The BRT route may also provide opportunities for the development of transit-oriented mixed-use development that optimizes the use of the BRT system by local residents and employees. The first phase of the BRT route is expected to be in operation in the next few years and is expected to have an initial headway of about 60 minutes. Areas of adequately intense development will constitute a potential market for mass transit. Initial dedication of a BRT route may serve as a backbone for a permanent mass transit route.

Transportation Demand Management

Transportation Demand Management (TDM) involves the development and implementation of policies, plans and programs designed to encourage the use of a wider range of transportation alternatives, including public transit and bicycles. As the Valley and the community continue to grow, transportation demand and systems management is necessary to preserve and increase available roadway capacity.

In addition to an emphasis on alternative travel modes such as carpooling, van pooling and mass transit, TDM can also include employee flex-time as an important component that reduces peak hour travel and associated traffic congestion. In response to state mandates, the Riverside County Transportation Commission (RCTC) prepared a regional Congestion Management Program, which required and other cities to prepare TDM ordinances or risk the loss of federal transportation funds. The City has an adopted TDM ordinance and one roadway, Monterey Avenue, which is in the regional congestion management plan.

Railway Facilities

Rail freight service is provided to the Coachella Valley by the Union Pacific Railroad (former SPRR), with freight transfer facilities located in Indio and Coachella. There is also current Amtrak service to Indio and Palm Springs on Union Pacific's line. These facilities carry between 30 and 40 trains per day, almost all of which are freight. These lines are what UPRR calls Centralized Track Control (CTC) facilities, which include extensive electronic switching and communication facilities. While there is currently neither direct passenger or freight access to these rail lines, the Indio platform allows passenger boarding and rail sidings in Indio, and Coachella currently facilitate freight access. Future access to Union Pacific Rail lines have been discussed and will involve substantial improvements to provide sidings, railroad utility relocations and access over the Mid-Valley Stormwater Channel.

Air Transportation

The General Plan area is served by two airports, Palm Springs International Airport and the Bermuda Dunes Airport. The Desert Resorts (Thermal) Regional Airport is also expected to play an increasingly important role in regional air transportation. The Desert Resorts Regional Airport is classified as a "Transport Airport" serving general aviation needs of the area. Plans for the airport are to eventually serve larger commercial aircraft with wing spans of up to 262 feet. Current facilities and operations, as well as long-term plans for the Palm Springs and Bermuda Dunes airports, are discussed below.

Palm Springs International Airport is the primary air transportation link for and the Coachella Valley. The airport is classified in the National Plan of Integrated Airport Systems (NPIAS) as a long-haul commercial service airport. It is capable of supporting non-stop commercial service to destinations over 1,500 miles and is classified as a small hub air passenger airport based upon the percentage of national airline enplanements it supports.

Since 1972, the airport has increased service from 143,809 passenger enplanements to 486,644 in 1994, with an average annual growth of about 5.5 percent. Major destination cities include San Francisco, Chicago, Seattle and New York. Commercial traffic is clearly seasonal, with the peak season being the January-February-March period and the slowest period occurring during the summer months. Commercial operations are expected to continue to grow, with passenger enplanements projected to have reached approximately 560,000 by 1999 and about 809,256 by the year 2015.

Bermuda Dunes Airport is a General Aviation Airport located adjacent and parallel to the Union Pacific Railroad/US Interstate-10 transportation corridor. Currently (1995), a total of approximately 25,332 operations occur at this airport, of which about 6.6% are business jets. The expansion of facilities at this airport are essentially precluded by surrounding development. Annual future operations are expected to reach 26,852.

Major Utility Corridors

General Plans play an important role in assuring the planned provision of major corridors and easements for the transport of natural gas, electricity, communications, domestic water and sewerage, and storm drainage. High capacity electricity, natural gas and petroleum transmission corridors typically occur within easements ranging from 50 to hundreds of feet in width. In many instances, the need for utility distribution corridors is met through the provision of easements in or adjacent to City streets and along common lot lines.

The planning of future land use, the division of land and the processing of development applications require consultation and coordination with utility companies and other service providers, to assure the availability, provision or preservation of easements and rights-of-way for the extension of roads and utility lines and services. The undergrounding of electrical lines and associated facilities also plays an important role in providing an uncluttered and relatively obstruction-free parkway adjacent to major streets (Also see Infrastructure and Public Services Element).

Bicycle Facilities

An extensive and safe bikeway system should be considered an integral part of any community circulation system, and especially so for a resort residential community. Currently (2000), the City has only a partially developed system of sidewalks, bicycle lanes or multi-use trails within roadway designs and rights-of-way. Carefully thought out and planned alternative transportation corridors serving pedestrian, and bicyclers will enhance and give greater opportunity to the use of various alternative modes of transportation and enhance the recreation activities of the City's residents and visitors. Future bike routes will serve as a safe route for intra-City bicycle traffic. These routes should be clearly marked and striped and should be designed as one-way bike routes to flow in the same direction as the adjacent automobile traffic. Combination sidewalk/bikeways require an eight foot width. The multi-use trails will also serve as links to recreational facilities throughout the community. Also please see the Parks and Recreation Element.

FUTURE DIRECTIONS

The future needs of the City roadway system will be affected by the buildout of vacant lands in the community and the area. Needs will also be affected by how well transportation issues, including preservation of roadway capacity, expanded use of mass transit and more highly integrated mixes of land use, are addressed in coming years. Based upon the Post 2020 traffic analysis, a variety of locations in the roadway network have been identified where focused planning, acquisition of rights-of-way and construction of special improvements will be needed to assure that adequate levels of service are maintained.

A number roadway segments are projected to have volumes that exceed capacity (i.e. V/C ratios of 1.0 or greater). While a particular segment has a stated capacity, the primary system constraints are at intersections, where improvements may allow the end-points of segments to operate acceptably. Based upon the Post 2020 traffic analysis, adequate right-of-way is available at all major intersections to assure adequate improvements and long-term operating conditions. Potential impacts to major roadways may also be lessened by thoughtful site planning, restricted access, and implementation of congestion management strategies.

GOALS, POLICIES AND PROGRAMS

Goal 1

A sustainable and environmentally responsible transportation and circulation system that provides a wide range of facilities and transportation options that move people, vehicles, and goods in an efficient, safe and economical manner.

Goal 2

A logically distributed hierarchy of streets that meet the current and future demand of the City and region, while maintaining and protecting the City's residential neighborhoods and resort character.

Policy 1

The City shall develop and maintain a General Plan master plan of roads, describing and illustrating detailed improvement plans and priority schedules for implementation."

Program 1.A

The City shall make good-faith efforts to achieve LOS C along roadway segments and for peak hour intersection operations. LOS D shall be acceptable in instances when physical constraints, land use compatibility or other urban design considerations make achieving LOS C impractical.

Responsible Agency: City Council, Community Development Department, Public Works Department

Schedule: 2004-05, every five years.

Program 1.B

The City shall identify and classify important intersections within the planning area that, due to their high volumes and intensity of surrounding lands uses, shall be permitted in the Post 2020 period to operate at LOS D during peak hour periods.

Responsible Agency: City Council, Public Works Department

Schedule: 2005

Program 1.C

The City shall establish and regularly update a pavement management program (PMP) for planning area streets that sets forth timelines and schedules for the maintenance of existing roads in the community. The program shall also establish funding levels for each fiscal year.

Responsible Agency: City Council, Public Works Department

Schedule: 2005; update annually.

Policy 2

In addressing local and regional circulation issues, the city shall coordinate and cooperate with CalTrans, CVAG, Riverside County and adjoining cities to assure preservation of capacity and maximized efficiency along Highway 111, Monterey Avenue, US Interstate-10, Varner Road, Washington Street, Fred Waring Drive, Portola Avenue, Cook Street, Dinah Shore Drive and other major roadways.

Program 2.A

Through CVAG and independent efforts, the City shall establish and maintain ongoing consultation and coordination with adjoining cities, CalTrans, SunLine, CVAG, and Riverside County planning and engineering staffs to study and implement effective means of preserving and improving capacity along Interstate-10 and its interchanges, Highways 111, Monterey Avenue, Washington Street, Fred Waring Drive, Portola Avenue, Cook Street, Dinah Shore Drive and other major roadways serving inter-city traffic. Coordination efforts may include synchronized signalization, consolidation of access drives and restriction of access, construction of additional travel and turning lanes, raised median islands, and improvements to critical intersections.

Responsible Agency: Public Works Department, Community Development Department, Adjoining Cities, CVAG, Riverside County, CalTrans

Schedule: Continuous.

Program 2.B

Every opportunity shall be pursued to limit access onto major arterials, to align and/or consolidate access drives in a manner that minimizes conflicting turning movements, and to maximize the use of existing and planned signalized intersections.

Responsible Agency: Public Works Department, Community Development Department

Schedule: Continuous.

Program 2.C

Except for special circumstances, on Major Arterials the minimum spacing for signalized intersection shall be 1,750 feet. Full access shall be by signalized intersection only. All access configurations shall be subject to City Engineer review and approval.

Responsible Agency: City Engineer

Schedule: Continuous.

Program 2.D

On Arterials, the minimum intersection spacing shall be approximately one-quarter mile. Full access shall be by limited to signalized intersection only, unless traffic volumes and visibility allow safe turning movements onto or off of arterial streets. All access configurations shall be subject to City Engineer review and approval.

Responsible Agency: City Engineer

Schedule: Continuous

Program 2.E

On secondary roadways, the minimum intersection spacing shall be 600 feet. All access configurations shall be subject to City Engineer review and approval.

Responsible Agency: City Engineer

Schedule: Continuous

Program 2.F

On collector roadways, the minimum intersection spacing shall be 300 feet. All access configurations shall be subject to City Engineer review and approval.

Responsible Agency: City Engineer

Schedule: Continuous

Program 2.G

On local streets, the minimum street intersection spacing shall be 250 feet. All access configurations shall be subject to City Engineer review and approval. This standard shall not apply to private driveways.

Responsible Agency: City Engineer

Schedule: Continuous

Program 2.H

The City shall consult and coordinate with CVAG, RCTC and CalTrans in efforts to secure state and federal funding for preservation and expansion of capacity on Interstate-10, State Highway 111 and other important City arterials.

Responsible Agency: Public Works Department, Community Development Department, CalTrans, CVAG, Federal Highway Administration

Schedule: Continuous.

Program 2.I

The City shall develop fully elaborated roadway development standards that address street and intersection geometries, travel speeds, traffic control devices, parking design standards, and street landscaping standards, which shall be incorporated into the City Development Code.

Responsible Agency: Public Works Department, Community Development Department,

Schedule: 2004-05.

Policy 3

The City shall pro-actively coordinate with CalTrans, CVAG and others to assure that access to and capacity of US Interstate-10 and other highways is preserved and enhanced.

Program 3.A

The City shall consult, coordinate and cooperate with CalTrans, CVAG and Riverside County in the planning, design and construction of the Portola Avenue/US Interstate-10 interchange.

Responsible Agency: Public Works Department, Community development Department, CalTrans, Riverside County, CVAG

Schedule: Continuous.

Program 3.B

To assure the long-term functionality of the Interstate-10 corridor, the City shall periodically evaluate the operating conditions at each of the Interstate-10 interchanges serving the City, including Monterey Avenue, Cook Street, future Portola Avenue and Washington Street, and shall make recommendations to responsible agencies regarding needed improvements.

Responsible Agency: Public Works Department, Community development Department, CalTrans, Riverside County, CVAG

Schedule: Ongoing

Policy 4

To assure representation of and appropriate regional response to local transportation issues, the City shall pro-actively participate in circulation-related regional planning activities, and encourage acceptance of City policies regarding regional transportation issues.

Program 4.A

The City shall pro-actively consult and coordinate with CVAG, SCAG and CalTrans and represent the City in transportation planning meetings to assure that City policies, programs and strategies are given full consideration in resolving regional transportation issues affecting the community.

Responsible Agency: City Council, Community Development Department, Public Works Department, CVAG, SCAG, CalTrans

Schedule: Continuous.

Policy 5

To relieve congestions, preserve roadway capacity, and enhance transportation opportunities, the City shall encourage expansion of ridership, regular updating of the service area, and the use of advanced systems, fuels and technologies in the public transit systems operated by the SunLine Transit Agency within the City.

Schedule: Ongoing

Program 5.A

The City shall continue to pro-actively promote the mass transit system expansion and innovation through ongoing consultation and coordination with the SunLine Transit Agency and CVAG, and shall assure vocal representation on the Agency Board and its decision making process.

Responsible Agency: City Council, Community Development Department, SunLine Transit Agency, CVAG

Schedule: Continuous.

Program 5.B

The City shall regularly consult and coordinate with the SunLine Transit Agency in the course of reviewing development proposals, and shall solicit comments and suggestions on how bus stops and other public transit facilities and design concepts, including enhanced lighting, security and handicapped access, should be integrated into project designs.

Responsible Agency: City Council, Community Development Department, SunLine Transit Agency, CVAG

Schedule: Continuous.

Program 5.C

The City shall continue to consult and coordinate with the SunLine Transit Agency and encourage the development of rideshare and other alternative, high occupancy transit programs for employers with sufficient numbers of employees, and for individuals seeking to locate potential rideshare partners.

Responsible Agency: City Council, Community Development Department, SunLine Transit Agency

Schedule: Continuous.

Policy 6

The City shall apply principles of integrated land use planning to enhance local land use interactions and synergies, and as a means of reducing traffic associated with work-related out-migration. In this regard, City land use plans shall take into consideration and, to the greatest extent practical, make every reasonable effort to enhance the City's jobs/housing balance.

Program 6.A

The City shall make a conscientious effort to encourage planning that locates jobs and commensurate housing opportunities near each other to produce shorter work commutes, increase housing for those employed in the City; encourage mixed-use development with a residential component contiguous with or near to employment centers.

Responsible Agency: Community Development Department, Redevelopment Agency, Chamber of Commerce

Schedule: Continuous.

Program 6.B

The City shall encourage land use planning that integrates the assemblage of land uses, optimizes nearby interactions, reduces the need for travel outside the neighborhood, and shortens trips to work, shopping, public services and public park facilities.

Responsible Agency: Community Development Department, Redevelopment Agency, Chamber of Commerce

Schedule: Continuous.

Policy 7

Promote the use of multi-occupant modes of transportation, and the shifting of employment-related trips out of current peak traffic periods.

Program 7.A

The City shall investigate and, to the extent practical, prepare a rideshare plan for its employees to serve as an example for area employers. This plan should include meaningful incentives for employees to walk, bike, or rideshare to complete their work commutes.

Responsible Agency: Community Development Department, Department of Human Resources

Schedule: Continuous

Program 7.B

To the extent practical, the City and the SunLine Transit Agency shall encourage employers to provide flexible start and stop work times for employees, and/or provide start/end times outside of the 6-8 a.m. and 4-6 p.m. peak periods of traffic.

Responsible Agency: Community Development Department, SunLine Transit Agency, City Council

Schedule: Continuous.

Program 7.C

To facilitate the expanded use of alternative modes of travel, the City shall encourage and proactively support the efforts of the SunLine Transit Agency in organizing a Transportation Management Organization (TMO) among employers to provide an ongoing information network, develop a rideshare plan, and determine opportunities for transit/shuttle operations.

Responsible Agency: Community Development Department, SunLine Transit Agency

Schedule: Continuous

Policy 8

The City shall continue its efforts to develop and facilitate the use of continuous and convenient bicycle routes and multi-use trails to places of employment, recreation, shopping, schools, and other high activity areas with potential for increased bicycle, golf cart and other non-vehicular use.

Program 8.A

In order to facilitate alternative modes of transportation, the City shall prepare and adopt a master plan of bicycle-ways and multi-use trails, and shall develop or require the development of secure bicycle and golf cart storage facilities, and other support facilities which increase bicycle and golf cart use.

Responsible Agency: Community Development Departments, Public Works Department

Schedule: 2004-05; Continuous.

Program 8.C

Facilitate pedestrian and other non-motorized access in the University Park planning area, specifically between the California State University campus and lands west of Cook Street, including residential and commercial lands and the future municipal golf course. If feasible, the City shall affect the construction of a bridge, tunnel or other appropriate access that limits disruption to traffic flows on Cook Street.

Responsible Agency: Community Development Departments, Public Works Department

Schedule: As determined appropriate.

Program 8.B

To facilitate pedestrian access, the City shall make every practical effort to provide sidewalks on both sides of all arterial and collector streets. Local streets shall be designed with a minimum of a sidewalk on one side of the street.

Responsible Agency: Community Development Departments, Public Works Department

Schedule: Continuous.

Policy 9

The City shall coordinate with the Coachella Valley Water District to assure the provision of all-weather crossings along all critical roadways, including but not limited to Portola Avenue and Cook Street crossing of the Whitewater River.

Program 9.A

To facilitate the completion of all-weather access on critical roads, the City shall consult and coordinate with the Coachella Valley Water District, and cooperate in the planning and development of all-weather crossings as part of the community's Master Drainage Plan and its implementation.

Responsible Agency: Community Development Department, Public Works Department, Coachella Valley Water District

Schedule: 2004; Continuous.

Policy 10

The City shall facilitate the design, updating and installation of a community signage program that efficiently directs traffic to high use areas, including civic center, parks and other public facilities, commercial districts and resort developments.

Program 10.A

The City shall provide a clear and coherent public signage program directing traffic to major community resources, including the City's park and recreational facilities, libraries, hospitals, police and fire stations, and civic centers. Signage should also provide direction to major resorts and shopping districts.

Responsible Agency: Community Development Department, Public Works Department

Schedule: 2005; Continuous.

Policy 11

The City shall consult, coordinate and cooperate with the Riverside County Airport Commission, Palm Springs International Airport Authority, and the Desert Resorts Regional Authority to assure that these airports continue to meet the City's existing and future transportation, commercial and emergency response needs.

Policy 12

The City shall give consideration to and, as appropriate, adopt roadway development standards that are responsive to local traffic volumes and conditions, provide residential traffic calming, and protect residential neighborhoods and other sensitive areas from undue traffic impacts

Program 12.A

The City shall amend its roadway design specifications and shall set forth alternative design standards and guidelines for public and private streets, with the intent of minimizing paved street cross sections, reducing traffic speeds in neighborhoods, and facilitating safe and efficient use of bicycles and other alternative modes of transportation. These guidelines and standards shall be established in the City's Development Code and where elsewhere appropriate.

Responsible Agency: Community development department, Public Works Department, Planning Commission, City Council

Schedule: 2005-06

Policy 13

City truck routes shall be clearly designated and limited to major roadways to the greatest extent practicable.

Policy 14

The Circulation Element shall be coordinated with the Community Design Element and the Development Code to identify and establish appropriate design and development controls for land uses along scenic roadways.

Program 14.A

Scenic roadways and corridors shall be identified and special set back requirements and landscape standards shall be established for streets including but not limited to: US Interstate-10, Monterey Avenue and Highway 74, Cook Street, Portola Avenue, Fred Waring Drive, Washington Street, Frank Sinatra Drive, Gerald Ford Drive, Country Club Drive, Highway 111 or other roadways deemed appropriate.

Responsible Agency: Community Development Department, City Engineer.

Schedule: 2004; Continuous

Policy 15

The City shall confer and coordinate with utility providers regarding work on utility infrastructure within the City street rights-of-way, and shall monitor traffic control and construction repair to assure minimum traffic disruptions and acceptable pavement restoration.

Program 15.A

In consultation with utility service providers, the City shall develop standards for the planning and execution of utility trenching and other construction activities within City street rights-of-way. Such construction activities shall be planned to minimize traffic disruption and adequate restoration of the roadway.

Responsible Parties: City Public Works Department, CVWD, SCE, IID, Verizon, Time Warner

Schedule: 2005-06

Policy 16

The City shall consider, as appropriate, implement creative and innovative roadway and intersection designs, which enhance traffic flow and roadway efficiency as well as accessibility and safety at intersections and at access drives serving adjoining development.

Program 16.A

To the greatest extent practicable, intersection and development access drive enhancements such as dedicated deceleration and acceleration lanes, and dedicated left-turn lanes, shall be incorporated into street designs to optimize traffic flow and defer or preclude the need for intersection controls such as stop signs or traffic signals.

Responsible Parties: Community Development Department, Public Works Department

Schedule: Immediate; On-going

HOUSING ELEMENT

PURPOSE

The purpose of the City of Palm Desert Housing Element is to provide the residents, development community and elected and appointed officials with a clear understanding of the City's housing needs. In order to achieve the ultimate goal of ensuring that every Palm Desert resident secures a safe and decent place to live within a satisfactory environment, the Housing Element promotes a close coordination of housing policies and programs at local, state and federal levels.

BACKGROUND

The Housing Element functions as an integral part of the City's efforts to manage the development of incorporated lands. The City balances the need to assure adequate housing for all current and future residents against the need to provide infrastructure and services. The Housing Element includes a description of existing housing types, condition of existing units, overcrowding, overpayment, homelessness, and the demand for affordable housing in the City. The Element also includes an analysis of the progress made since the drafting of the last Housing Element, and projections of needs for the next five years.

California Law

California Government Code requires that every City and County prepare a Housing Element as part of its General Plan. In addition, State law contains specific requirements for the preparation and content of Housing Elements. According to Article 10.6, Section 65580, the Legislature has found that:

- (1) The availability of housing is of vital statewide importance, and the early attainment of decent housing and a suitable living environment for every California family is a priority of the highest order.
- (2) The early attainment of this goal requires the cooperative participation of government and the private sector in an effort to expand housing opportunities and accommodate the housing needs of Californians of all economic levels.
- (3) The provision of housing affordable to low and moderate income households requires the cooperation of all levels of government.
- (4) Local and state governments have a responsibility to use the powers vested in them to facilitate the improvement and development of housing to make adequate provision for the housing needs of all economic segments of the community.
- (5) The legislature recognizes that in carrying out this responsibility, each local government also has the responsibility to consider economic, environmental, and fiscal factors and community goals set forth in the General Plan and to cooperate with other local governments, and the state, in addressing regional housing needs.

Section 65581 of the Government Code states that the intent of the Legislature in enacting these requirements is:

- (1) To assure that local governments recognize their responsibilities in contributing to the attainment of the State housing goal.
- (2) To assure that cities and counties prepare and implement housing elements which, along with federal and State programs, will move toward attainment of the State housing goal.
- (3) To recognize that each locality is best capable of determining what efforts are required by it to contribute to the attainment of the State housing goal as well as regional housing needs.
- (4) To ensure that each local government cooperates with other local governments to address regional housing needs.

Government Code Section 65583 outlines the required content of all housing elements including identification and analysis of existing and projected housing needs, and a statement of goals, policies, quantified objectives, and scheduled programs for the preservation, improvement, and development of housing. Specific requirements include the following:

- (1) An assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs. The analysis should include population and employment trends; documentation of household characteristics; inventory of land suitable for residential development; governmental and other constraints to new housing development; analysis of any special housing needs and an assessment of existing affordable housing developments.
- (2) A program which sets forth a five-year schedule of actions the local government is undertaking or intends to undertake to implement the policies and achieve the objectives of the housing element in order to meet the housing needs of all economic segments of the community.

Evaluation of Existing Housing Element Goals and Policies

The last Housing Element Update was adopted by the City Council in December of 1989, and certified by the Department of Housing and Community Development as meeting the requirements of the law. The last Housing Element presented a "Five Year Program Summary" which specified the programs in which the City would participate during that planning period. The Summary is presented below, and each Program's effectiveness is discussed.

I. Neighborhood Quality, Public Infrastructure Rehabilitation and Conservation

- A. PROGRAM: Completion of all remaining residential infrastructure.
Scope: 2,373 units
Cost: \$15,000,000
Source: Redevelopment Agency, Tax Assessments
Agency: Redevelopment Agency/Public Works
Completion Date: July, 1989

The City issued bonds to fund the construction of streets, storm drainage and sanitary sewer improvements in 1988. The bond issue successfully completed the program. Further activity is not necessary.

- B. PROGRAM: Residential Rehabilitation Loans.
Scope: 200 units
Cost: \$250,000
Source: Redevelopment Agency
Agency: Redevelopment Agency/Building and Safety

The Redevelopment Agency has assisted 28 very low-income households and 18 low-income households. The program has been successful, and continues to be implemented. It should be maintained in the new planning period. In addition, there is a need for rehabilitation funds being applied to multi-family projects. Such a program will be considered in the new planning period.

- C. PROGRAM: Certificate of Conformance
Scope: Estimate 100 units
Cost: None
Agency: Community Development/Building & Safety

The program was successfully implemented. A total of 83 legal non-conforming units were rehabilitated and given certificates of conformance. The program shall remain in the City's Municipal Code as an option available for future use.

- D. PROGRAM: Town Center Apartments.
Scope: Rehabilitation of 64 low-income apartments
Cost: \$2,500,000.00
Agency: Redevelopment Agency, Department of Building and Safety, Riverside County Housing Authority

The project, now known as Desert Pointe, was purchased from the County of Riverside for \$3,095,000, and rehabilitated by the Redevelopment Agency, and is assured of affordability in perpetuity.

- E. PROGRAM: Mobile Home Park Conservation.
Scope: 191 units
Cost: \$6,400,000.00
Agency: Redevelopment Agency, Riverside County Housing Authority

The Agency assisted 47 residents in purchasing their spaces at the Portola Palms Mobile Home Park, and has thereby ensured their affordability. The affordability restrictions are for 30 years. The Indian Springs Park was not purchased as planned. In addition, the City implemented a Rent Control Ordinance for mobile home parks, and continues to maintain this ordinance at this time. The protection of rents at mobile home parks is an important component of their on-going affordability. The on-going preservation of mobile home spaces will continue to be implemented through the City's Redevelopment Agency, as projects become available.

II. Reduced Cost and Price for New Construction

A. PROGRAM: Affordable High Density Rental Employee Housing.

Scope: 366 very low-income units

366 low income units

366 moderate income units

1,100 Total Units

Cost: Construction \$60,000,000

Annual subsidy: \$2,480,000.00

Source: Redevelopment Agency, Riverside County Housing Authority, Commercial Development Housing Mitigation Fees

Agency: Community Services, Redevelopment Agency, Public Works, Building and Safety, Riverside County Housing Authority.

The Agency has purchased and/or rehabilitated 745 rental units during the previous planning period, at a total expenditure of more than \$45,000,000. These units were in multiple projects, and were funded through Agency funds, bond issues, and other means, as follows:

<i>Pueblos Apartments:</i>	<i>\$788,000</i>
<i>Las Serenas:</i>	<i>\$8,330,000</i>
<i>Taos Apartments:</i>	<i>\$800,000</i>
<i>Neighbors Apartments:</i>	<i>\$1,540,000</i>
<i>Desert Pointe:</i>	<i>\$3,095,000</i>
<i>One Quail Place:</i>	<i>\$25,095,000</i>
<i>Catalina Apartments:</i>	<i>\$2,761,300</i>
<i>Santa Rosa Apartments:</i>	<i>\$400,000</i>

The purchase of all of these units except the Santa Rosa Apartments occurred in 1998. Santa Rosa was purchased in 1995. Prior to that time, the Redevelopment Agency subsidized the County Housing Authority for the period from 1991 to 1998 for a total of \$20,400,349. These subsidies ensured that the properties were properly maintained, and remained affordable to very low, low and moderate income households. The Agency continues to look at projects for purchase in the new planning period.

B. PROGRAM: Ownership Mortgage Assistance.

Scope: 56 units eligible for low interest loans.

Cost: \$5,000,000

Source: Riverside County

Agency: Riverside County

The County First Time Homebuyers Program continues to be accessible to residents of Palm Desert. Since 1995, 17 loans have been made in the City. In addition, the City issued bonds to fund the construction of the Desert Rose project, which provides ownership housing for 161 low and moderate income households. The City subsidized closing costs and wrote down purchase prices for eligible families for a total subsidy of \$5,434,037. The City also underwrote the marketing of the project, and supplied the land, for a total additional contribution of \$5,931,625. Altogether, the City invested \$11,365,662 into the Desert Rose project.

- C. PROGRAM: Self-Help Housing.
Scope: 12 assisted single family homes
Cost: \$320,000
Source: Redevelopment Agency, California Self-Help Housing Program, HCD, California Housing Finance Agency.
Agency: Coachella Valley Housing Coalition, Redevelopment Agency, Department of Building and Safety.

The City assisted in the development of 17 single family self-help homes, located in various neighborhoods throughout the City. These included 11 units built through the Coachella Valley Housing Coalition, 2 units built through Habitat for Humanity, 2 units built through Building Horizons, and 2 units on Rebecca Lane built through the Agency. The project was successful, and should be maintained for the new planning period.

- D. PROGRAM: Manufactured Housing.
Scope: 241 units within new parks and implementation of state laws against discrimination within single family zones.
Cost: None
Agency: Community Development

The Portola Country Club project includes a total of 499 manufactured housing units available for sale to senior households. The City has also implemented state law regarding non-discrimination. The continued implementation of manufactured housing options appears to have limited value at this time, due to the affordable cost of construction for traditional housing.

- E. PROGRAM: Senior Housing Overlay.
Scope: 600 congregate care units
50 very low income apartments
100 lower income apartments
150 moderate income apartments
Cost: \$1,000,000
Source: Private developer inclusionary requirements and in-lieu fees..
Agency: Community Development.

A total of 469 congregate care beds were constructed during the previous planning period. No new restricted apartments were constructed by private parties. The Agency has acquired, however, the Las Serenas, Pueblos and Catalina Gardens apartments for senior households in the low and very low income categories. The senior overlay has been implemented, has generated a total of 252 units, and should be maintained in the new planning period.

- F. PROGRAM: Senior Second Unit.
Scope: Zoning standards permitting second units on single family lots rentable to residents over 60 years of age.
Cost: None
Agency: Community Development.

The City implemented the zoning ordinance standards. The standard should be maintained in the new planning period, as it provides for affordable housing for senior households.

- G. PROGRAM: Homelessness.
Scope: Financial assistance to valley shelter
Cost: \$10,000
Agency: Riverside County Housing Authority/Catholic Charities.

The City funded \$15,000 annually until 1998 (\$5,000 for the Coachella Valley Rescue Mission, and \$10,000 for Catholic Charities). The City is now considering the use of Community Development Block Grant funds for these projects.

- H. PROGRAM: Federal Section 8 Rent Subsidies.
Scope: 58 assisted households
Cost: unknown
Agency: S. Department of Housing and Urban Development.

There are currently 75 Section 8 households in the City. The program should be maintained, as it provides valuable assistance to lower income households.

DEMOGRAPHIC INFORMATION

In order to understand the housing needs of the residents of Palm Desert, it is important to first look at the make up of the community and its demographics.

REGIONAL SETTING

This section of the Housing Element contains relevant demographic, household, and socio-economic data. This information is primarily based on data provided in the 1990 and 2000 U.S. Census of Population and Housing, the California Department of Finance and the City of Palm Desert.

The City of Palm Desert is located in the Coachella Valley, in eastern Riverside County. The County experienced extremely rapid growth in the 1980's. County population grew from 663,923 in 1980 to 1,110,000 in 1990, an increase of 67%. The 2000 U.S. Census estimates that population in the County rose to 1,545,387 in 1999.

Historic and Current City Population

The U. S. Census estimated a population of 23,252 in Palm Desert in 1990. The population was further estimated at 41,284 in 2000, representing an average annual increase of just under 6.25%.

Population by Age Group and Ethnicity

In 1990 the City's median age was 42.3 years, representative of the high number of retired persons who have been attracted to the Coachella Valley. By the year 2000 the median age had risen to 48.0.

Table III-14
Age Distribution, 2000

Age	Number	% of Total
Under 19	7,744	18.8%
20-34	6,030	14.6%
35-44	5,372	13.0%
45-64	10,728	26.0%
65+	11,410	27.6%
Total	41,284	100%
Source: 2000 U.S. Census		

Table III-15 lists the ethnic distribution for Palm Desert in 2000.

Table III-15
City of Palm Desert
Ethnic Characteristics, 2000

	Number	% of Total
White	35,961	87.1%
Black	493	1.2%
Native American	130	0.3%
Asian & Pac. Islanders	1,061	2.6%
Other	3,639	8.8%
Total	41,284	100%
Hispanic	7,031	17.0%
Note: the ethnic population numbers may seem distorted because the U.S. Census does not consider Hispanic ancestry to be a race. For this reason, some Hispanics choose to list themselves under the classification for other races.		
Source: 2000 Census of Population and Housing		

Household Size and Income

The City had a total of 19,370 households in 2000. The 1990 Census identified a median household income in the City of \$37,315, slightly higher than the County median income, which stood at \$36,000 for the same time period. By 2000, median household income had risen to \$48,316. The following Table lists the number of households in each income range in 2000.

Table III-16
City Household Income Distribution, 2000

Income	No. of HH	% of Total
Less than \$10,000	1,413	6.5%
10,000-14,999	1,043	5.4%
15,000-24,999	2,128	11.0%
25,000-34,999	2,306	11.9%
35,000-49,999	3,111	16.1%
50,00-74,999	3,715	19.2%
75,000-99,999	1,938	10.0%
100,000-\$149,000	1,919	9.7%
\$150,000-\$199,999	815	4.2%
\$200,000 +	982	5.1%
Total	19,370	100%*
Source: 2000 U.S. Census *Differences due to rounding.		

Employment and Major Employers

The Census data also provided information on employment distribution in 2000. Of a total workforce of 17,384, the largest sectors for employment were retail trade and services.

Table III-17
City Employment by Industry, 2000

Industry	No. of Employees	% of Total
Agriculture/Forest/Fish/Mining	82	0.5%
Construction	1,427	8.2%
Manufacturing, Durables	492	2.8%
Wholesale Trade	390	2.2%
Retail Trade	2,167	12.5%
Transportation, warehousing & utilities	530	3.0%
Information	372	2.1%
Finance, insurance & real estate	1,705	9.8%
Professional, scientific, management & administration	1,806	10.4%
Educational, health & social services	3,051	17.6%
Arts, entertainment, recreation, accommodation & food service	3,760	21.6%
Other services (except public administration)	992	5.7%
Public Administration	610	3.5%
Total Employment by Industry	17,384	100%
Source: 2000 Census		

The City's current major employers are listed in Table III-18.

Table III-18
Major Employers – 1999

Employers	Number of Employees
Westfield Shoppingtown	2,750
Marriott's Desert Springs	1,800
College of the Desert	500
Robinson-May Company	350
Sunrise Company	325
Macy's	75
Foundation for the Retarded	75
J.C. Penney's	33
Waste Management of the Desert	150
U.S. Filter	133
City of Palm Desert	126

Source: City of Palm Desert Redevelopment Agency

The retail and service sectors continue to be a major source of employment for residents of the City.

Housing Characteristics

The 2000 Census showed a total of 28,071 housing units in the City in 2000.

Table III-19
City Housing Characteristics

Units in Structure	Number
Single Family, detached	11,120
Single Family, attached	9,551
2-4 Units, Multi-family	2,463
5+ Units, Multi-family	3,738
Mobile homes	1,199
Total	28,071

Source: 2000 US Census

The greatest growth in housing type has occurred in the single-family home area, continuing the City's historic trend as a suburban community. It is important to note that in addition to rapid growth, the above numbers also reflect annexations undertaken by the City during the last ten years.

Age of Housing Stock

The City's occupied housing units are relatively new, with only 41% being over twenty years old in 2000, as demonstrated in the Table below.

Table III-20
Age of Housing Units

Year Built	No of Units	% of Total
1999-3-00	372	1.9%
1995-1998	1,292	6.7%
1990-1994	2,416	12.5%
1980-1989	7,331	38.0%
1970-1979	4,343	22.5%
1960-1969	2,351	12.2%
1940-1959	1,106	5.7%
Before 1940	88	0.5%
Total	19,299	100%

Source: 2000 U.S. Census, City of Palm Desert

Vacancy Status

The 2000 Census showed a total of 8,701 of the City's total 28,071 housing units to be vacant, for an overall vacancy rate of 31.2%. Correcting for seasonal or recreational units, which are considered vacant by the Census but are not available or used for permanent occupancy, the vacancy rate decreased to 6.3% in 2000.

Table III-21
Vacancy Status – 2000

Unit Type	No. of Units Vacant	% of All Units
For Rent	562	6.4%
For Sale	351	4.0%
Rented or Sold, not occupied	192	2.2%
Seasonal, Recreational or Occasional Use	7,005	79.9%
For Migrant Workers	0	0.0%
Other Vacant	662	7.5%
Total	8,772	100%

Source: 2000 Census

Housing Tenure

Housing tenure for occupied units only in 2000 is shown in Table III-22.

Table III-22
Housing Tenure – 2000

Unit	No. of Units	%
Owner Occupied	12,964	67.2%
Renter Occupied	6,335	32.8%
Total	19,299	100%

Source: 2000 Census

Overcrowding

The State Department of Housing and Community Development (HCD) has set the standard of 1.01 persons per room as the criteria for defining “overcrowded” housing conditions. Overcrowding is one of the specifically identified issues that must be addressed in the Housing Element. High rents and home prices in some communities limit low-income persons from obtaining homes with adequate space or bedrooms. The following Table represents the range of persons per room in the City’s housing units in 2000.

**Table III-23
Overcrowding, 1990**

Persons/Room	No. of HH
Owner-Occupied Units	
0.50 or less	10,938
0.51 to 1.00	1,727
1.01 to 1.50	180
1.51 to 2.00	87
2.01 or more	32
Renter-Occupied Units	
0.50 or less	3,830
0.51 to 1.00	1,827
1.01 to 1.50	278
1.51 to 2.00	249
2.01 or more	151

Source: 2000 Census

Based on this data, a total of 977 households in Palm Desert were overcrowded. This represents approximately 5.1% of occupied housing units in the City in 2000. Of the total households overcrowded, 678 were renters and 299 were owners.

Housing Values

The 2000 Census estimated values for owner-occupied single family homes in the City. These are listed in Table III-24.

**Table III-24
Values, Specified Owner-Occupied
Housing Units, 2000**

Value	Number
Less than \$50,000	86
\$50,000 to 99,999	1,056
\$100,000 to 149,999	2,714
\$150,000 to 199,999	1,982
\$200,000 to 299,999	2,554
\$300,000 to 499,999	1,743
\$500,000 to 999,999	647
\$1,000,000 or more	152

Source: 2000 Census

The median housing unit value in 2000 was \$189,100. For renters, the median contract rent at that time was \$744.00. Current housing values and rental rates are further discussed below.

LAND INVENTORY

Table III-25 shows the available residentially designated land in the City which is located within one mile or less of all necessary services and infrastructure (including water, electric power, telephone and City roadways). The Table also calculates the maximum number of units which could be generated within this zoning district.

Table III-25
Vacant Residential Land, 2000

Designation	Acreage	Potential Units
R-1 (3 d.u./acre)	197.98	594
R-1-M Residential (5 d.u./acre)	40.1	201
R-2 (7 d.u./acre)	12.08	85
R-3 (18 d.u./acre)	17	306
P-R-5 Planned Residential (5 d.u./acre)	958.66	4,793
P-R-6 Planned Residential (6 d.u./acre)	1.15	7
P-R-7 Planned Residential (7 d.u./acre)	18.86	132
P-R-17.5 Planned Residential (17.5 d.u./acre)	34.44	603
Total	1,280.27	6,721
City of Palm Desert Planning Department Land Use Inventory, 2000 GIS Database.		

Multi-family residential units are permitted by right in the Medium Density and High Density land use designations. In addition, the City has implemented overlay zoning for affordable and senior projects, which when applied provides applicants with further density and special standards. There are no limits to the potential density for such projects. Therefore, the potential units in the R-2, R-3 and PR-17.5 zoning districts could increase substantially if these lands were proposed for affordable housing.

The City's Regional Housing Needs Assessment for 1998-2005 totals 444. Based on the Table above, there is both sufficient land and a sufficiently broad variety of densities to provide housing of all types and in all income ranges. In the R-3 and PR-17.5 zoning districts alone, a total of 909 multi-family units are possible, without the implementation of the above-referenced affordable housing overlays. The City of Palm Desert has designated more than sufficient land to meet its housing need for the planning period. Please also refer to the discussion of Quantified Objectives, below.

EXISTING AFFORDABLE HOUSING PROGRAMS

There are a number of projects and programs available in Palm Desert which provide a variety of services to the City's residents. In addition, regional, state and federal programs can also be accessed within the community. This section of the Housing Element provides a summary of programs available by a number of agencies.

City Programs

The City has focused its redevelopment funds on the production of new units, the rehabilitation of existing units,, and has developed a single-family Home Improvement Program. The Home Improvement Program provides loans or grants tailored to the household's income to improve an existing housing unit. Grants can range to \$12,500, and loans up to \$25,000.

The City's Redevelopment Agency provides a wide range of services for City residents. These services are designed to implement fair housing policies and procedures and to provide information concerning minority rights under existing fair housing laws. Three new assistance programs have been developed for implementation in 2001, as follows:

Mortgage Subsidy Program

Very low, low, and moderate income owners of single-family homes, condominiums and mobile homes may receive assistance if their mortgage payment exceeds 30% of their income. Assistance will be provided directly by the Redevelopment Agency. In exchange for the assistance, the home owner will be required to enter into a recorded agreement with the Agency assuring affordability of the home for 30 years.

Rental Subsidy Program

Owners of single-family homes, condominiums, mobile homes or apartments who rent to very low, low, and moderate income tenants may receive direct rental payment assistance from the Agency. The owner must, in exchange for the assistance, enter into a recorded agreement with the Agency assuring affordability of the rental units for 30 years.

Homebuyers Program

The Agency will provide assistance to very low, low, and moderate income persons in the form of low interest loans to be applied to down payment, non-recurring closing costs, reduction of the interest rate on the first trust deed, or any other cost associated with the purchase of a home, condominium or mobile home.

The City's projects are discussed further under "Affordable Housing Projects"

County and Federal Programs

There are numerous programs available to provide rental assistance and to encourage the construction of new affordable housing. The following programs are available in the City of Palm Desert:

Section 8 Housing Assistance

The Riverside County Housing Authority provides HUD Section 8 rental assistance to lower income renters within the City. The Authority subsidizes 75 households in the City.

Senior Home Repair Program

The County implements a program that allows qualifying households to receive grants for repairs to their single-family units. Loans can be applied to a wide range of projects, including sewer hook-ups and roof repairs, up to \$35,000.

First Time Homebuyers Program

The County operates this program for qualified households, to assist in the purchase of a home. Loans are in the form of silent seconds, and cover expenses such as down-payments and escrow costs.

AFFORDABLE HOUSING PROJECTS

The City of Palm Desert Redevelopment Agency purchased 8 housing projects in the previous planning period in the City to provide a wide range of housing for lower income residents. The following affordable housing projects are available in the City. The current mix of tenants is also provided, but changes periodically, based on the applications received.

Agency Owned Apartments

One Quail Place provides 384 one and two-bedroom apartments available to all income ranges. There are 92 very low, 95 low, and 152 moderate-income households currently living in the complex.

Desert Pointe is a 64 one and two-bedroom unit project which currently houses 29 very low-income households, 6 low-income households, and 29 moderate-income households.

The Pueblos provides 15 two-bedroom units to very low-income senior households.

Neighbors Garden Apartments has a total of 24 two-bedroom units, 15 of which are rented by very low-income households, 8 of which are low-income tenants, and one is rented to a moderate-income tenant.

Catalina Gardens provides 72 studio and one-bedroom apartments to 40 very low, 11 low, and 17 moderate-income senior households.

Las Serenas Apartments has 150 one-bedroom units rented to 56 very low-income, 28 low-income, and 64 moderate-income seniors.

Taos Palms provides 16 two-bedroom units to 13 very low and 3 moderate-income households. These units are available for victims of domestic abuse, as long-term transitional housing.

Santa Rosa Apartments provides 20 very low-income units.

Affordable Ownership Projects

Desert Rose is a 161 unit single-family project restricted for a period of 30 years to purchasers in the very low, low, and moderate-income categories. The project includes 24 very low income, 105 low-income and 32 moderate-income households. Facilities within the project include community recreation and daycare.

The Rebecca Lane Homes has two single-family homes with resale restrictions for low-income households.

Coachella Valley Housing Coalition constructed a total of 11 homes restricted to very low (3) and low (8) income households, and purchased through low interest loans and sweat-equity programs.

Habitat for Humanity constructed 3 single-family homes, which are restricted to very low-income households, and were purchased through low interest loans and sweat-equity programs.

Building Horizons homes were built as part of a vocational high school program, and provide two single-family homes for low-income households, with 30-year resale restrictions.

Other Affordable Projects

San Tropez Apartments has 512 one and two-bedroom units, of which 51 are available to low-income households, and 52 to moderate-income households, for a total of 103 units available through the City's Density Bonus Program. The balance of the units are available to market households.

Laguna Palms has a total of 48 studio, one and two bedroom units restricted to 24 very low and 24 to low-income households.

Candlewood Apartments is a senior and disabled tenant project which has 26 one-bedroom units for 13 very low and 13 low-income households.

Summary of Affordable Housing Projects

Altogether, the City owns 745 multi-family housing units, available to 341 very low, 330 low, and 354 moderate-income households. In addition, there are 37 very low and 37 low-income restricted multi-family units owned by private parties.

CONSTRAINTS TO THE DEVELOPMENT OF HOUSING

A number of governmental, environmental and other constraints can affect the provision of affordable housing in any community. This section of the Housing Element reviews these potential constraints, and analyses whether constraints exist in Palm Desert.

Governmental Constraints

Permit Processing

The City of Palm Desert has adopted a rapid processing system which assures that all applications are processed efficiently. The City allows for the concurrent processing of all types of applications, and an applicant with a complete application can secure Planning Commission approval in 3 months or less. The City's timelines for application processing are not a constraint to development.

Application Fees

The City's Community Development Department fee schedule is depicted below. Clearly, these fees are not a constraint to the development of housing.

Table III-26
City of Palm Desert
Planning Department Fees

Permit Type	Fee
General Plan Amendment	\$ 500.00
Change of Zone	325.00
Architectural Review (single family home)	15.00
Conditional Use Permit or Precise Plan	140.00
Environmental Assessment	30.00
Tentative Tract Map	250.00 + 2.50 per lot/\$1,000 max.
Parcel Map	50.00

Source: City of Palm Desert, 2000

The City Council may waive fees for affordable housing projects.

General Plan and Zoning Ordinance Constraints

The Land Use Element of the City's General Plan allows for density ranges of 1 to 18 units per acre. In addition, the City has implemented a Second Unit Senior District and Senior Housing Overlay District in its Zoning Ordinance, which allow an additional rental unit on a single family lot, and higher density for senior projects, respectively. The City has also implemented a density bonus program for projects which commit to income restrictions, as implemented at the San Tropez Apartments, and a senior overlay which allows additional units for senior-restricted units. The increased densities available under these overlays vary, but have no pre-set limits, providing the greatest possible flexibility to the development community.

Other provisions in the Zoning Ordinance impact the cost of housing in the City. Development standards can increase the costs of construction, and thereby increase the cost of the home to the buyer. The City's development standards are listed in Tables 16 and 17 of the Zoning Ordinance. Some of the most relevant standards are listed in the following tables.

Table III-27
Residential Development Standards
Minimum Area Requirements for Residential Zones

Use	Livable Area in Sq.Ft.	Parking Required
Single-Family	1,000	2 spaces
Studio & 1 Bedroom Apt.	600	2 spaces, 1 covered
2 Bedroom or more Apt.	800 - 2 bdrm 1,200 - 3 bdrm	2 spaces, 1 covered

Source: City of Palm Desert Zoning Ordinance

Table III-28
Minimum Development Standards for Residential Zones

Standard	R-1	R-2	R-3
Units per Acre	5	7	18
Lot Area	8,000 sq. ft.	8,000 sq. Ft.	10,000 sq. Ft.
Lot Width	70 feet	70 feet	90 feet
Lot Depth	n/a	100 feet	100 feet
Building Lot Coverage	35%	50%	50%
Common Area	N/A	N/A	300 s.f./unit
Building Height	1 story/18 feet	22 feet	22 feet

Source: City of Palm Desert Zoning Ordinance

The tables above illustrate that the development standards in the City do not represent an over-restrictive condition, and are not a constraint to development of affordable housing.

Projects including new residential construction are normally required to install all necessary on and off-site improvements, including a half-width of the paved width of the street, concrete curbs, sidewalks, water connections and sewer connections. Roadway standards for local or neighborhood streets that allow parking on both sides of the street have paved width of 40 feet. Infrastructure improvements are in place in most locations within the City limits.

Building Code Requirements

The City enforces the Uniform Building Code (UBC), as do communities throughout California. When the UBC is updated, the City updates its implementing ordinance accordingly. The City cannot adopt standards that are less stringent than the UBC. Imposition of the UBC does not unduly impact the cost of housing in Palm Desert in comparison to any other community in the State.

Building Permit Fees

The City charges fees for the review of building plans and the inspection of residential structures under construction. These fees are intended to recoup the City's costs associated with these activities. In addition, school districts throughout California charge a fee of \$2.05 per square foot of residential construction to offset the costs of providing new schools.

The City's Building Department has prepared a typical building permit fee for a single-family residence with a valuation of \$164,150.00 (including a two car garage and 200 square foot patio cover). Transportation Uniform Mitigation Fee (TUMF) fees for new construction provide exemptions for affordable housing projects. This estimate is provided below.

Table III-29
City of Palm Desert
Typical Single Family Building Permit Fees

Permit Type	Fee
Plan Check Fee	\$ 457.28
Construction Tax	800.00
Building Permit Fee	703.50
Microfilm Fee	21.00
Job Valuation Fee	41.25
Strong Motion Instrumentation Program Fee	16.42
Art in Public Places	410.38
Transportation Uniform Mitigation Fee	794.31
Total Building Fee	3,244.14

Source: City of Palm Desert, 2000

Fees will similarly be charged for multi-family residential projects, based on valuation of the project. In addition, developers are required to pay fees to other agencies, over which the City has no control. These include fees for water and sewer connection, and school fees. These fees are imposed on all development in the City and throughout the Coachella Valley, and have not impacted development of housing in Palm Desert or elsewhere in the Valley.

Finally, the City Council has the ability to waive or defer fees for affordable housing projects, as demonstrated in Policy 5 of this document.

Code Enforcement

The Code Enforcement process can result in the loss of affordable units. Conversely, however, the Code Enforcement Department provides protection to renters and homeowners from issues of public health and safety. The Code Enforcement Department in Palm Desert works closely with the Housing Manager's office to coordinate areas that require assistance, particularly with health and safety issues. The Housing Manager coordinates repairs through the Home Improvement Program, and establishes the grant or loan to assist the household in making repairs. The City is also considering establishing such a program for multiple family residential units.

Economic Constraints

Non-governmental constraints to affordable housing in the City include the cost of land, cost of construction, and cost of financing. The geography of the Coachella Valley dictates that these factors are more regional than City-specific.

Land Costs

The cost of land is an important component of housing costs. The rapid increase in land costs throughout Southern California has pushed up housing costs simultaneously. Land in the Coachella Valley has been, and remains, relatively affordable compared to other Southern California markets, but increased demand for housing due to population growth will continue to put pressure on land costs.

Land in Palm Desert can range from \$30,000 to \$40,000 for an in-fill improved residential lot, to \$100,000 per acre for a larger parcel of land. With a maximum potential density of 18 units per acre, this represents a maximum potential cost per unit of \$5,500 assuming that no density bonus is involved in the project.

Construction Costs

Construction costs are the result of the current costs of labor, materials, and short-term financing. Single-family construction costs are estimated to range between \$50 and \$100 per square foot depending on home design and materials selected. Multi-family construction costs range from \$40 and \$75 per square foot, again depending on design. The median sale price for a single family home in 1998 in the City was \$155,000, according to the California Association of Realtors.

Financing Costs

Financing costs impact both the purchase price of the unit and the home buyers ability to purchase. Interest rates fluctuate in response to national factors. Currently relatively low (8% to 9%), they can change significantly and substantially impact the affordability of the housing stock. There are no known mortgage deficient areas in the City. Financing for both construction and long term mortgages is available subject to normal underwriting standards.

Physical Constraints

Maintenance of Housing Stock

As housing units age, they become more expensive to maintain. Housing units over 30 years of age can become a burden to the owners, as costs for repairs rise. In Palm Desert, there are 3,545 housing units built before 1970, representing 18% of the City's total housing stock. These units may require continued attention to remain viable housing units.

Table III-30
Age of Housing Units

Year Built	No of Units	% of Total
1999-3-00	372	1.9%
1995-1998	1,292	6.7%
1990-1994	2,416	12.5%
1980-1989	7,331	38.0%
1970-1979	4,343	22.5%
1960-1969	2,351	12.2%
1940-1959	1,106	5.7%
Before 1940	88	0.5%
Total	19,299	100%

Source: 2000 U.S. Census, City of Palm Desert

Environmental Constraints

Seismicity

The City of Palm Desert is located south of the San Andreas Fault. The City is classified as Zone III and IV in the Uniform Building Code for seismic activity. The UBC imposes certain standards for construction in these zones, which may add to the overall costs of housing. These standards, however, are necessary for the public health and safety, and are common throughout the Valley and California. The standards required to protect the City's residents from seismic hazards is not considered a constraint to the provision of housing.

HOUSING NEEDS

Existing Need

Although the Regional Housing Needs assessment included analysis of each community's existing need, the California Department of Housing and Community Development has indicated that the existing need analysis was to be used as a guide in identifying and establishing appropriate programs and policies. The analysis determined that the City should have a total of 15,292 housing units, well below the 28,882 currently occurring in the City.

The 1998-2005 Regional Housing Needs Allocation

The Regional Housing Needs Assessment was prepared by SCAG. The following table lists the 1998-2005 allocation for the City of Palm Desert.

**Table III-31
Future Housing Needs by Income
Category, 1998-2005**

	Units
Very Low Income	77
Low Income	67
Moderate Income	85
High Income	215
Total Units Needed	444

SPECIAL HOUSING NEEDS

There are households with identifiable special needs, as defined by California law for which the City must plan. These groups include single parent households, farmworkers, the handicapped and the elderly. Each special needs category is discussed in greater detail below.

Farmworkers

The 1990 Census showed a total of 217 persons employed in agriculture in Palm Desert in 1990. The changing economy, and the elimination of agricultural lands in the City is likely to have reduced that number further. Year 2000 Census data is likely to show a much smaller number of persons employed in agriculture living in the City.

Homeless

Homelessness is a difficult issue to quantify. The homeless are generally mobile, often crossing from one city or county into another. The mild winter climate in the Coachella Valley may attract the homeless in those months. Hot summer temperatures encourage the homeless to seek daytime shelter in air-conditioned public buildings such as libraries and malls.

The primary provider of services to the homeless in the Coachella Valley is Catholic Charities, a non-profit, nondenominational organization. Catholic Charities staff reports that the reasons for homelessness include sudden job loss, illness and lack of medical insurance, family break-ups, and seasonal job layoffs or reduction in hours. Catholic Charities and the County Housing Authority operate a 40 bed emergency shelter for homeless families. The shelter is located in Palm Springs, but serves the entire Coachella Valley region.

Shelter From The Storm is a battered women's shelter located in the Coachella Valley. Women and their children generally stay up to 45 days. The Shelter provides three meals a day, counseling and other services.

Other homeless individuals not served by the facility at Nightingale Manor include the mentally ill, those with chemical dependencies, and those who voluntarily choose a transient lifestyle. These individuals may be served by the Coachella Valley Rescue Mission, located in Indio, or by the Emergency Cold Weather Shelter, located at the National Guard Armory in Indio, in the winter months. These facilities provide only emergency shelter and do not deal with the causes of homelessness.

There is currently a shelter for women in the City of Palm Desert.

The Elderly

In 2000, the City had 11,339 persons over the age of 65, representing 27.6% of the population. These seniors were in a total of 7,356 households. The Census further indicated that there were 6,176 owner-occupied senior housing units, and 1,661 renter-occupied housing units.

Affordability can be an issue of special concern to the elderly, who are often on fixed retirement incomes. In addition, the elderly may require assistance with housekeeping, maintenance, and repairs to remain in their own homes as long as possible. Special design features that may be needed include elimination of barriers such as steps and the provision of recreational and social amenities for the elderly.

The City of Palm Desert has a number of facilities for the elderly, including several board and care facilities that house elderly persons who require some level of medical care. The City is also home to several nursing care facilities, including the Carlotta, with 192 beds; Manorcare Health Services, with 178 beds; and Monterey Palms, with 99 beds. The City's seniors also live in its mobilehome parks, as discussed below.

Handicapped

The 2000 Census identified 7,833 persons in the City with disabilities, of which 3,505 were persons over the age of 65. No data is currently available which correlates disability to income, and not all disabling conditions impact an individual's income or housing needs. Many disabilities, however, lead to special housing needs such as ramps, wider doors and hallways, lower cabinets and countertops, and grab bars.

The Americans with Disabilities Act (ADA) requires that all new multi-family construction include a percentage of units accessible to the handicapped. The City of Palm Desert Building Department requires compliance with these standards as part of the Building Permit review and inspection process.

AIDS

The Desert AIDS Project (DAP) has 50 clients who live in Pam Desert. Although other residents may be HIV-positive, most DAP clients have progressed into the symptomatic stages of the disease. As the disease progresses, persons with AIDS (PWAs) often become unable to work, lose their source of income, and lose their medical insurance. Housing affordable to low-income people, including group homes and hospice care, become special housing needs of PWAs.

Large Families

The 2000 Census indicates there were 1,052 households with five or more persons in the City. The Census further indicated that 589 of these households lived in owner-occupied housing units, and 463 lived in renter occupied housing units. Large families have a special need for three, four, or more bedroom units. The Census also identified a total of 1,879 housing units with 4 or more bedrooms. No data is available regarding the relationship of these larger units to affordability.

Single-Parent Families

2000 Census data indicates there are 1,165 single-parent families in the City, 328 with a male head of household and 837 with a female head of household. Single individuals with dependent children need housing that is both affordable and located close to daycare facilities and schools.

Affordable Units at Risk

Only one project in the City qualifies as being "at risk." The 26 unit Candlewood Apartments has a 5-year contract with the Department of Housing and Urban Development to remain affordable, and could opt out at the end of each of these contract renewals. Provisions should be made by the City to safeguard these units, should their affordability be threatened.

Riverside County Income Limits

The 2001 median income calculated for Riverside County for a family of four is \$49,900. This is used to calculate very low (50% of median) and low (80% of median) incomes for use in State and federal subsidized housing programs.

Table III-32
Affordable Housing, Income Limits
County of Riverside, 2001

# of Persons	Annual Income Standards			
	Very Low	Low	Median	Moderate
1	\$17,450	\$27,950	\$34,950	\$41,950
2	\$19,950	\$31,950	\$39,900	\$47,900
3	\$22,450	\$35,950	\$44,900	\$53,900
4	\$24,950	\$39,900	\$49,900	\$59,900
5	\$26,950	\$43,100	\$53,900	\$64,700
6	\$28,950	\$46,300	\$57,900	\$69,500
7	\$30,950	\$49,500	\$61,900	\$74,300
8	\$32,950	\$52,700	\$65,850	\$79,050

Source: California Department of Housing and Community Development, Income Limits for Riverside County, 2001

Households Overpaying for Housing

The Census estimated the number of households overpaying for housing in 2000 in the City. Overpayment is defined as paying more than 30% of a household's income toward the provision of shelter. 2,192 renter-occupied households were paying more than 30% of their income toward housing expenses in 1990, while 3,450 owner-occupied households were paying more than 30% of their income toward housing expenses.

Preservation of Mobilehome Parks as an Affordable Housing Opportunity

Traditionally, mobilehome parks have provided an affordable housing opportunity, particularly for senior citizens. Mobilehome parks will have a positive impact on the City's lower-income residents, and their ability to find affordable housing. The City has a total of 1,203 mobile homes currently. Table III-37 provides a listing of the City's mobilehome parks, and their representative rental rates.

Table III-33
Representative Mobilehome Park Rental Rates in Palm Desert, 2000

Project Name (total units)	Senior Only	Monthly Rental
Indian Springs (191)	Yes	\$ 380-600
Palm Desert Mobile Estates (142)	No	282-330
Silver Spur (219)	No	424-485
Suncrest (360)	Yes	398-676
Portola Palms (142)	No	Ownership

Source: Terra Nova Planning & Research, Inc. 2000

Apartment Rental Rates

The median monthly rental rate for Palm Desert was \$616 in 1990. Based on the 30% gross household income standard, a monthly income of \$1,850, or annual income of \$22,200, was needed to afford a rent of \$616 per month. In order to gauge the affordability of housing in the City currently, a telephone survey of representative projects was conducted.

Table III-34
Representative Apartment Market Rental Rates in Palm Desert,
2000

Project Name (total units)	Unit Size	Market Rental Rate	Restricted Rental Rate
Candlewood (26)	1 Bdrm	\$400.00	
Catalina Garden (72)*	Studios	\$428.00	\$227-523
	1 Bdrm	\$525.00	\$233-549
Country Club Estates (141)	1 Bdrm	\$575.00	
Desert Oasis (320)	Studios	\$365.00	
	1 Bdrm	\$695-720	
	2 Bdrm	\$730-865	
	3 Bdrm	\$995-1,075	
Desert Pointe (64)*	Studios	\$465.00	\$227-523
	1 Bdrm	\$550.00	\$233-549
	2 Bdrm	\$635.00	\$288-683
Golden Oaks (16)	2 Bdrm	\$650.00	
Laguna Palms (48)	Studios	\$410.00	
	1 Bdrm	\$500.00	
	2 Bdrm	\$600.00	
Las Serenas (150)*	1 Bdrm	\$500.00	\$233-549
Neighbor's Garden (24)*	2 Bdrm	\$600.00	\$288-683
One Quail Place (384)*	1 Bdrm	\$640.00	\$233-549
	2 Bdrm	\$680-725	\$288-683
Palm Desert Apartments (248)	Studios	\$495.00	
	1 Bdrm	\$550-575	
	2 Bdrm	\$595.00	
Palm Desert Palms (40)	2 Bdrm	\$695-725	
Palm Lake Village (220)	1 Bdrm	\$750-850	
	2 Bdrm	\$825-925	
Panorama (58)	1 Bdrm	\$595.00	
The Pueblos (15)*	2 Bdrm	\$312.00	\$202-312
Rancho Vista (42)	2 Bdrm	\$800.00	
	3 Bdrm	\$1,000.00	
San Tropez Villas (512)	1 Bdrm	\$705.00	
	2 Bdrm	\$837.00	
Taos Palms (16)*	2 Bdrm	\$615.00	\$241-615
Villa del Sol (32)	2 Bdrm	\$675.00	

* Units owned by the City of Palm Desert

Clearly, the City's market rate rental housing is at a level which represents an affordable housing opportunity for most households. A very low-income family of 3, based on the 2000 income limits shown in Table III-34, above, would be able to afford an apartment at \$534.00 per month. A low-income family of 4 could afford up to \$948.00 per month. This results in most families being able to afford the market rate apartments in the City without assistance.

Energy Conservation

Energy conservation is particularly important in the Coachella Valley, due to the extreme summer heat. Title 24 and Building Code regulations require energy efficiency in all new construction of housing through design features, insulation, and active solar devices. When evaluating energy efficiency standards above and beyond the State-mandated Title 24, local jurisdictions must balance the increase in the cost of housing with the reduction in monthly utility bills for the user.

The City's development regulations, building regulations and General Plan enforce the standards required in Title 24, as well as providing encouragement for the use of energy efficient construction techniques.

QUANTIFIED OBJECTIVES

Table III-35
Quantified Objectives Matrix, 1998-2005

Income Category	Very Low	Low	Moderate	High	Total
New Construction	77	67	85	215	444
Rehabilitation	50	65	35	0	100
Conservation	5	5	0	0	10

REDEVELOPMENT AGENCY FUNDING

In order to achieve the quantified objectives shown above, the Redevelopment Agency must make certain that adequate funds are available to assist in the development of housing. The Redevelopment Agency receives approximately \$7,000,000.00 annually in housing set-aside funds. Of these funds, approximately \$3.5 million is allocated to debt service. An additional \$700,000 annually is required for administration and other expenses. The Agency has projected that the following projects will be funded during this planning period.

Santa Rosa III Substantial Rehabilitation:	\$1,000,000.00
City Land/145 Multi-Family & 115 Single-Family Ownership New Construction:	\$14,876,802.00
Single-Family Rehabilitation:	\$8,100,000.00
Multi-Family Rehabilitation:	\$2,500,000.00
New Affordable Senior Project:	\$2,000,000.00
Self Help Housing:	\$750,000.00

In addition, the Agency may facilitate the issuance of tax-exempt multi-family bonds for both new construction and acquisition and rehabilitation. Two such projects under negotiation by the Agency at this time (2001) include the purchase of 141 apartments on California Street, to be made available to 36 very low, 70 low and 35 moderate-income households; and the development of a 20 unit apartment project on Santa Rosa Way, to include 5 one-bedroom and 15 two-bedroom units, available to 10 very low and 10 low-income households.

Finally, two privately funded projects are currently (2001) under way:

- The first will result in 612 apartment units to be built in two equal phases. The project is located on Hovley Lane, between Cook Street and Portola. The first phase will be completed in November of 2002, and will include 31 units restricted to low-income households. The second phase will be completed in December of 2003, and will add another 31 units restricted to low-income households.
- The second project, to be constructed on California Street, will result in 76 senior units, 8 of which will be restricted to low-income households, and 8 to moderate-income households. The project will be complete in October of 2001.

Implementation of these projects is the focus of the goals, policies and programs which follow.

PUBLIC PARTICIPATION

The City held a number of workshops and public hearings in reviewing this Housing Element. These included a public workshop held by the Housing Commission, which was advertised throughout the City's projects, a public workshop before the General Plan Advisory Committee, and duly noticed public hearings before the Planning Commission and City Council. All these meetings and hearings were fully noticed, with additional notices posted within the City's housing projects.

GOALS, POLICIES AND PROGRAMS

Goal 1

A variety of housing types that meet all of the needs for all income groups within the City.

Goal 2

The preservation and maintenance of the high quality of the City's affordable housing supply.

Policy 1

The creation of new and the preservation of existing affordable housing projects shall be encouraged in all areas of the City.

Program 1.A

The Agency shall pursue development of 145 rental and 115 ownership units west of Cook Street, between 42nd Avenue and Merle, as an affordable family project.

Responsible Agency: Redevelopment Agency

Schedule: 2002-2005

Program 1.B

The Agency shall continue to implement the Self Help Housing program, and shall identify 20 households to be assisted by the program in this planning period.

Responsible Agency: Redevelopment Agency

Schedule: 2004-2005

Program 1.C

The Agency shall continue to subsidize existing affordable housing units in the City, including apartment units it owns now and in the future.

Responsible Agency: Redevelopment Agency

Schedule: Ongoing

Program 1.D

The Agency shall maintain the existing resale restrictions and other subsidies on the Desert Rose project.

Responsible Agency: Redevelopment Agency

Schedule: Ongoing

Program 1.E

The Agency shall maintain ownership of its 745 existing rental housing units in order to assure long term affordability for these projects.

Responsible Agency: Redevelopment Agency

Schedule: Ongoing

Policy 2

The City shall continue to strive to meet the State-mandated special shelter needs of large families, female headed households, single parent families, senior citizens, handicapped and homeless individuals and families, and shall consider including units for such households in its projects.

Program 2.A

The City shall continue to enforce the provisions of the Federal Fair Housing Act. Information on the Fair Housing Act, as well as methods for responding to complaints, shall continue to be available at City Hall in the Housing Manager's office.

Responsible Agency: Housing Manager, Redevelopment Agency

Schedule: Ongoing

Program 2.B

The City shall work with the Senior Center and other appropriate agencies in assisting whenever possible in the housing of handicapped residents, through participation by the Redevelopment Agency.

Responsible Agency: Redevelopment Agency, Senior Center

Schedule: Ongoing

Program 2.C

The development of homeless shelters and transitional housing shall be maintained as a conditional use in the R-3 and Planned Residential districts in the Zoning Ordinance.

Responsible Agency: Community Development Department

Schedule: Ongoing

Program 2.D

The City shall encourage local organizations, such as the Coachella Valley Rescue Mission, Martha's Village and Catholic Charities, to apply to the City for the assignment of CDBG funds for homeless services.

Responsible Agency: City Manager's Office

Schedule: 2003-04

Program 2.E

The City shall encourage the acquisition of existing mobile home parks by non-profit agencies or organizations, in order to preserve their affordability.

Responsible Agency: Redevelopment Agency, City Manager's Office

Schedule: Ongoing

Policy 3

The City shall continue to utilize resale and rental restrictions, applicant screenings, and other appropriate mechanisms established as conditions of approval in order to preserve affordable for sale housing units for the long term.

Program 3.A

The City shall keep in regular contact with the Riverside County Housing Authority to ensure that Section 8 housing assistance within the City is actively pursued. At least 50 households should be assisted every year.

Responsible Agency: Housing Manager

Schedule: Ongoing

Program 3.B

Should the Candlewood Apartments opt-out of their HUD contract, the City shall actively participate in the identification of a potential buyer to maintain affordability for this project. The Redevelopment Agency will also assist these organizations in securing financing.

Responsible Agency: Redevelopment Agency

Schedule: As needed

Policy 4

The Redevelopment Agency shall annually allocate funds to eligible projects for review and consideration, in conformance with its Five Year Implementation Plan.

Policy 5

The City Council shall consider, as an additional incentive, the reduction, subsidizing or deferring of development fees to facilitate the development of affordable housing.

Policy 6

The City shall continue to address the needs of the senior population in the development of housing.

Program 6.A

The City shall maintain the Senior Housing Overlay District and the Second Unit Senior Housing standards in the Zoning Ordinance.

Responsible Agency: Community Development Department

Schedule: Ongoing

Program 6.B

The Agency shall begin to develop plans for a senior housing project during this planning period.

Responsible Agency: Redevelopment Agency, Housing Manager

Schedule: 2003-04

Program 6.C

The City shall continue to encourage the development of assisted living facilities for seniors.

Responsible Agency: Redevelopment Agency, Community Development Department

Schedule: Ongoing

Policy 7

The City shall implement the State's density bonus law.

Policy 8

The City shall encourage the rehabilitation of existing housing units.

Program 8.A

The Agency shall annually fund the Single Family Rehabilitation Program, and shall assist 25 households each year.

Responsible Agency: Redevelopment Agency, Housing Manager

Schedule: 2003-04, Ongoing

Program 8.B

The Agency shall establish and fund a multi-family residential rehabilitation program, and assist 30-40 multi-family units during the planning period.

Responsible Agency: Redevelopment Agency, Housing Manager

Schedule: 2003-04

Policy 9

The City shall maintain the Rental Subsidy Program, the Mortgage Subsidy Program and the Homebuyers Program.

Policy 10

Promote the jobs/housing balance through the development of housing with convenient access to commercial land uses, schools, available public transport and employment centers.

Policy 11

Encourage energy conservation through the implementation of new technologies, passive solar site planning and enforcement of building codes. Please also see the Energy and Mineral Resources Element.

PARKS AND RECREATION ELEMENT

PURPOSE

The purpose of the Parks and Recreation Element is to plan and provide for a diverse and integrated parks and recreation system, which creates important active and passive recreational amenities that reflect and are responsive to the needs and standards of the City. This Element is also intended to serve as the basis for preparing a Parks and Recreation Master Plan, and includes an inventory of existing parks, trails and recreational amenities, as well as an assessment of other suitable lands to be incorporated into the system.

In addition, this Element provides implementation strategies and describes potential funding sources for constructing future parks and trail facilities. The goals, policies and programs set forth in this Element address the community's desire for parklands and recreational areas, and encourage the development of these facilities as an integral component of the City's design.

Two separate discussions are included, dividing the Element into two distinct components: Parks and Trails. This approach helps to clearly differentiate the requirements and parameters of each component. The park section describes each park, its acreage, amenities available and location. The Trails section includes descriptions of bicycle, pedestrian and hiking paths and their integration into the park system.

BACKGROUND

The Parks and Recreation Element is directly related to the Land Use Element of the General Plan, and also has connections to the Open Space and Conservation Element with regard to trail usage in open space corridors and mountain environments, and the benefit of natural areas as viable components of open space lands.



Existing and future park sites and trails are shown on the land use map and have a bearing on the suitability of adjacent land use designations. Accessibility to parklands, as well as the development of bike and pedestrian trails relates to issues presented in the Traffic and Circulation Element. Additionally, the recreational functions and appearance of City parks also relates to the Community Design Element and to the Public Buildings and Facilities Element.

The statutory references for park land dedications are found in the Subdivision Map Act. Specifically, Government Code Sections 66477 and 66479 require park site dedications, or fees in lieu of dedication, based upon existing and projected local population and General Plans land use designations. Recreation uses are included in the description of land use elements in Section 65302(a). Trail designations are also required as part of Section 5076 of the Public Resources Code.

PARKS

Parks and recreational facilities can have many important functions within a community and can be utilized in a variety of beneficial ways. They contribute significantly to a community's quality of life, by transforming and enhancing urban areas. They create a soothing contrast to high-density development through the use of appropriate landscaping and structural design. They provide active and passive recreational opportunities, with access to planned and maintained open space areas, recreational facilities and organized sports areas, allowing people to have direct contact with the natural and man-made environments. Parks also contribute significantly to the community's sense of place by creating a gathering place for social activities

In general, a good park provides a variety of uses and activities, adequate access and linkage, comfort, an attractive appearance and most importantly a social atmosphere. As a public place, a good park should be connected to the community with the right combination of physical amenities that attract people and make it a central place in the neighborhood. These attributes of a good park should serve as the foundation for the City's parks planning. Open space lands in the City differ to some degree from park lands in improvements and use, but are important enhancements to City recreation facilities (also see the Open Space and Conservation Element).

Parks Planning and the Parks Master Plan



A basic element to parks planning is the classification of park areas. Classifications are generally defined as broad functional categories, and are described by their physical conditions including amenities, area of service and size specifications.

Of importance in parks planning are the parks-to-population formulas that are used to assure adequate park and recreational spaces for all residents. Population is the major determinant to the amount of acreage of parkland and the facilities to be provided. In order to determine which park facilities are appropriate, the parks planning process should, therefore, include a population and local needs analysis, taking into account the particular demographic characteristics of Palm Desert residents and visitors. The needs analysis should also consider any unique opportunities or constraints

that currently exist or may occur in the future. In addition, an adequate Master Parks and Recreation Plan should address issues of maintenance and funding, and establish definitive standards for a variety of parks and recreational areas. The following table provides the National Recreation and Parks Association's acreage standards for various types of parks, which should be considered for inclusion into the City's park system.

Table III-36
Standards for Recreational Areas

Type of Park Area	Acres/1,000 Population	Ideal Site Size	Radius of Area Served
Mini Parks	0.25	0.5 - 1 ac	0.25 miles
Neighborhood Parks	1.0	5 - 10 ac	0.25 - 0.5 miles
Community Parks	5.0	30 - 50 ac	0.5 - 3 miles

It should be noted that the above standards are flexible, serve as a valuable guide and represent acreage needs for each park type. As noted above, the particular demographics as well as the existing conditions of the City determine which park type and standards are appropriate. The three types of parks currently (2001) serving the City of Palm Desert are regional, community and neighborhood parks. These parks can be considered either passive (parks meant for the enjoyment of sitting, picnicking and hiking) or active (parks with sports fields, exercise equipment and playground areas). The following is a brief description of the types of parks that are relevant to the City's parks planning.

Types of Parks

Mini Parks

Mini-parks or pocket parks are the smallest park classification and are generally used to address limited or isolated recreational needs. They are generally very popular in new housing developments, and are sometimes called "tot lots" or "sitting parks". For this reason they are considered specialized facilities that serve a concentrated or limited population, or specific group, such as very young children or seniors. Generally, mini-parks are located inside a neighborhood, within or in close proximity to apartment complexes, townhouse developments, senior housing or other development that requires recreational space. Currently (2001) there are no mini parks in the planning area. However, the City does recognize that they can serve as an integral part of a well-rounded park system, and will continue to take into account their importance in helping to meet the community's recreational needs.

Neighborhood Parks

Neighborhood parks remain the basic unit of the park system. They are intended to provide for the active and passive recreation needs of nearby residents, and serve as a social focus of the neighborhood. This type of park is typically planned to be geographically centered within the neighborhood, and with safe walking and bicycle access through linkages to trails and bicycle paths. Neighborhood park facilities typically include such features as picnic areas, playground equipment, hard court areas, a multi-purpose playfield for informal games, bicycle racks and limited vehicular parking.



Special landscaping and public art may also be featured in neighborhood parks. For Palm Desert residents and visitors who do not live in gated communities, neighborhood parks are an important feature.

The typical size of neighborhood parks is in the five to ten acre range. The ultimate size will depend on available land and the size and relationship of the neighborhood to be served. Although neighborhood parks should usually be within walking distance, the low residential densities, population characteristics and number of gated communities in Palm Desert justify a service radius guideline of approximately 1.5 miles. The actual service area for a neighborhood park is often a function of the ease with which residents can access the park.

The design of neighborhood parks must carefully consider their physical proximity to adjacent homes, while avoiding adverse impacts to surrounding lands from noise, traffic or lights. They should be located on local public streets to facilitate convenient access, and designed to address the full range of safety and security issues. Above all, neighborhood parks should be designed to serve as the recreational and social focus of the neighborhood to draw people together, providing common ground for camaraderie, fun and relaxation.



Community Parks

Community parks provide active and passive recreation opportunities on a larger scale than neighborhood parks. The desirable size for community parks ranges from 20 to 50 acres. Given the moderate population density of Palm Desert and adjacent cities, the appropriate service radius for a community park is about five miles. However, it is typical for adjacent neighborhoods to utilize them.

Community Parks typically include fields for organized baseball, softball, soccer and football. Tennis complexes and a large swimming pool are also often included in community parks. A community recreation building may be provided for indoor sports as well as for educational and cultural activities. Passive recreational activities may include picnic areas, unique landscaping, formal gardens and open space areas.

Regional Parks

Regional parks refer to recreational areas and facilities that are used on a Valley-wide basis. They may have the same size specifications and provide basically the same amenities as a community park, but generally offer more diverse facilities and recreational opportunities. For that reason they attract users from surrounding areas and cities. In addition, regional parks will generally have planned events or activities that appeal to a wide range of people. Regional parks may also include natural resource areas that provide passive recreational opportunities in a more natural environment. This distinguishes natural resource areas that are essentially open space and conservation areas, where “use” is incidental to their conservation and protection.

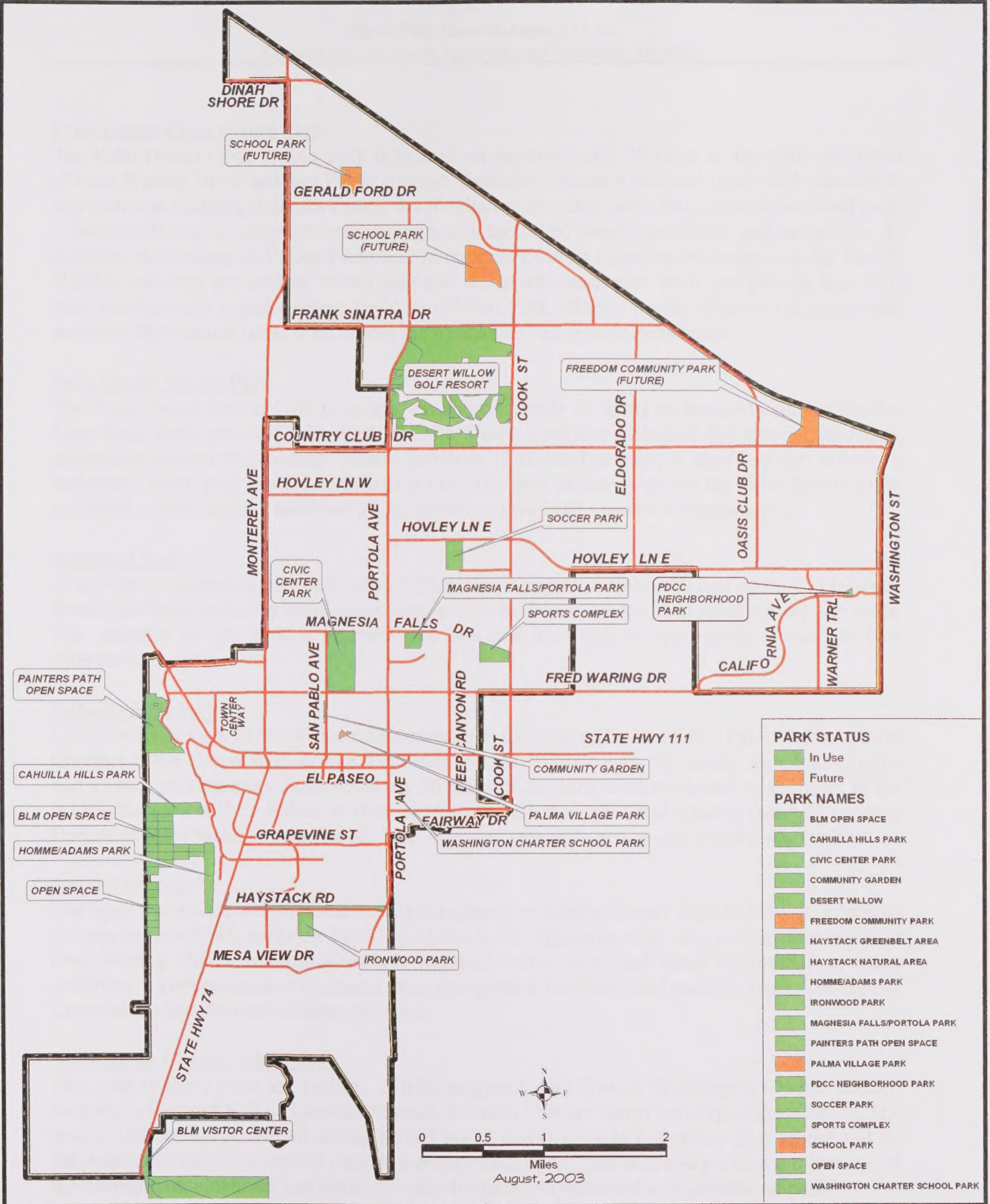
Existing Park Facilities

Parks within the City are generally characterized by their size, facilities, the number of people that use them and the surrounding area they serve. The three types of parks currently (2001) serving the planning area include regional, community and neighborhood parks, and are comprised of both passive and active facilities. Table III-37 sets forth park and cooperative-use facilities, and includes the number of acres, ownership and amenities within each facility.

Table III-37
City of Palm Desert Parks Inventory

Park Facility Name	Parkland Classification	Acreage	Owner/Administrator	Amenities
Existing Facilities				
Civic Center	Regional	70 ±	City	1,2,4,5,6,7,9,10,11,12,13,14,15,16,17
Palm Desert Soccer Park	Regional/Community	21 ±	City	2,6,7,8,9,11,12,13
Cahuilla Hills	Community	27.5±	City	5,12,14
Ironwood Park	Community	14.5±	City	7,9,12,13,14
Sports Complex	Community	10±	School District	1,3,7,9,11,13
Washington Charter School	Neighborhood	2.5±	School District	7,13
Portola Park	Neighborhood	2±	City	10,13,14
Palm Desert Country Club	Neighborhood	2.5±	City	2,4,7,10,13,14,16
Future Facilities				
Homme/ Adams	Regional	27 ±	City	10,13,15
Regional Park	Regional	34 ±	City	1,2,4,5,7,13,14
1= BASEBALL	5= TENNIS	9= HORSESHOES	13= PICNIC AREA	
2= BASKETBALL	6= SOCCER FIELDS	10= RESTROOMS	14= PLAYGROUND	
3= FOOTBALL	7= OPEN GRASS/TURF	11= AMPHITHEATRE	15= HIKING TRAILS	
4= VOLLEYBALL	8= SHUFFLE BOARD	12= CONCESSION	16= DOG PARK	
			17=SKATEBOARDS	

Exhibit III-8, below, shows the locations of existing and proposed parks in the planning area.



Palm Desert Civic Center Park

The Palm Desert Civic Center Park is located on approximately 70 acres at the northeast corner of Fred Waring Drive and San Pablo Avenue. Facilities include 4 baseball fields with concession and restroom building, 6 tennis courts, 4 volleyball courts, dog park, date grove, skateboard park, 3 basketball courts, amphitheater, playground facilities, picnic pavilions, and restrooms. In addition, the Coachella Valley Parks and Recreation District Community Center and the Family YMCA buildings are located within the park, along with open play areas and parking lots. This park also includes a date garden. The Civic Center Park offers a variety of facilities, events and activities that attracts users from across the Coachella Valley on a daily basis.

Palm Desert Soccer Park

The Palm Desert Soccer Park is located on approximately 21 acres on the south side of Hovley Lane East, about one half mile west of Cook Street. Facilities include 5 full size soccer fields, concession/restroom building, picnic pavilion, 3 horseshoe pits, 3 shuffleboard courts, a basketball court, play ground and parking lots. The park primarily serves the Palm Desert youth and adult soccer leagues, however it also serves as a regional venue for tournaments.

Ironwood Park

This park is located on the east side of Chia Drive approximately 200 feet south of Haystack Road. Facilities include a small grass area, picnic pavilions, tot lot, restrooms and on-site trails. The majority of the park is undeveloped and has been left as open space. Ironwood is a community park.

Cahuilla Hills Park

Cahuilla Hills Park is located on approximately 27.5 acres, west of the Palm Valley Storm Channel at the Green Way Bridge. Facilities include tennis courts (2), picnic area, hiking trails and a small parking area. Approximately 26 acres of the park is undeveloped open space. In the future, the park will be linked to Homme/Adams Park through a trail system that will traverse Bureau of Land Management (BLM) land. The park currently serves as a community facility.

Sports Complex

The Sports complex is a joint use facility integrated with Palm Desert High School. It is located on approximately 10 acres on Phyllis Jackson Lane, approximately one-quarter mile north of Fred Waring Drive. Amenities include baseball fields, open turf areas for football or other activities, a concession and restroom area, playground facilities, and parking areas. The Sports Complex is classified as a community park.

Washington Charter School Park

This park is also a joint use facility, as it is integrated with George Washington Charter School, located on the west side of Lantana Avenue, between Chicory Street and Peppergrass Street. The park is utilized by the school during school hours, and is open to the public after school and on the weekends. Facilities on-site include a playground, open grass area and parking lot, because of the limited park amenities and hours for use, this park is considered a neighborhood park.

Portola Park

Portola Park is a neighborhood park located on Magnesia Falls Drive and is approximately 2 acres. Facilities include a playground, picnic areas, and a restroom.

Palm Desert Country Club Neighborhood Park

This neighborhood park is located on the north side of California Drive approximately one-half mile west of Washington Street. Facilities include a basketball court, volleyball court, playground facilities, dog park, rose garden picnic pavilion, restrooms and open grass areas. While this park is considered a neighborhood park, it can also be considered a community park because its service population expands beyond neighborhood residents.

Future Parks

Homme/ Adams Park

This park will be located on approximately 45 acres on the west side of the Palm Valley Storm Channel at Thrush Road. Planned facilities include parking, restroom and picnic areas. This site will serve as a trailhead into the Cahuilla Hills trails system, and will be a regional park. The estimated completion of this park is December 2003.

Regional Park

An as yet unnamed City regional park is planned for development on the north side of Country Club Drive approximately one-half mile west of Washington Street on a 34 acre site. Potential facilities include 4 baseball fields, a multi-use field, tennis courts, basketball courts, volleyball courts, picnic areas, playground and other related amenities. Desert Sands Unified School District may purchase a portion of the land to construct and operate an elementary school. In addition, the Coachella Valley Recreation and Parks District has expressed an interest in relocating their main administration offices to this location and providing a child care facility within the complex. Estimated completion of this facility is Summer 2003.

Additional Facilities

In addition to the park facilities listed above, there are other recreation opportunities within the planning area. The Coachella Valley Recreation and Park District operates a community center and park in Thousand Palms. It is located on 31-819 Robert Road, and consists of three ball fields, playground equipment, with concession and restroom facilities. The District also owns the Edge Hill Tennis Courts, on the corner of Pitahaya and Edge Hill within the City of Palm Desert. In addition to these facilities, the District also runs several recreational programs through facilities at College of the Desert, Palm Desert High School and at the Civic Center Park.

The Family YMCA located within the Civic Center Park, also offers a variety of recreational programs and opportunities, including youth day camps, swimming, basketball, karate, ballet, yoga, biddy sports (3 to 5 year-olds) and other organized classes and programs.

Desert Willows is a City-owned public golf course, located west of Cook Street and east of Portola Avenue. Desert Willows has two 18-hole, championship golf courses on a total of 270 acres. The Fire Cliff Course is located on 140 acres, with a total course distance of 7,100 yards.

The Mountain View Course is situated on 130 acres, and is 6,900 yards. Desert Willows junior golf programs include Fairways Youth and a golf camp that runs from June through August. Play is fee based, and ranges from \$135 to \$165 during the season, and from \$65 to \$75 during the summer months. Discounts are offered to residents of Palm Desert, who pay \$45 year round with a resident card.

The golf courses currently average about 90,000 rounds of golf per year, or about 250 rounds per day. The capacity of the golf course is approximately 182,500 rounds per year, or 500 rounds per day. The City is currently (2001) planning for a third golf course to accommodate the anticipated increase in play. While community assets, municipal golf courses do not meet the criteria for public parks facilities and should not be counted against or as meeting community park needs.

The Bureau of Land Management (BLM) operates the Santa Rosa Mountains National Scenic Area Visitor's Center on Highway 74, just south of the City of Palm Desert. The Visitor Center is staffed by volunteers and includes interpretive nature displays and artifacts, as well as a bookstore. Surrounding the center is a short loop trail that incorporates a native desert garden with interpretive signage. Currently (2001), the trail is being redone to comply with ADA standards, and will include self-guided trail brochures that describe the native vegetation and wildlife to be encountered in the garden. The BLM visitor's center and associated City lands are not part of the City park system but provide important opportunities for enjoyment of regional open space. Also please see the Open Space and Conservation Element.

Financing, Land Acquisition and the Quimby Act

The Quimby Act (Government Code Section 66477), a section within the Subdivision Map Act, authorizes local governments through adoption of an ordinance to require the dedication of land or the payment of in-lieu fees for parks and recreational purposes as an exaction for approval of a map. The purpose of the Subdivision Map Act from which Quimby is derived, is to establish statewide uniformity in local subdivision procedures.

The dedication of lands and payments of in-lieu fees are specifically directed toward the provision of park and recreation areas, and are applied as a condition of approval of a tentative tract or parcel map. In addition to single-family home subdivisions, it is recommended that the City also consider in-lieu fees for additional parks in non-subdivision related development such as apartment complexes. The Quimby Act further states that the amount of land dedicated or fees paid are to be based on residential densities resulting from approval of a tentative subdivision map or residential development plan.

The City's adopted ordinance for neighborhood and community public facilities, established the standard of 5 acres of parkland per 1,000 persons as adequate for local recreational space needs. Based on future growth, it is recommended that the City continue to maintain this standard as a maximum requirement for providing quality community places. Additional parkland shall be provided in proximity to residential areas and should be appropriately distributed throughout the community. The ordinance also states that fees to be paid for park and recreational purposes shall be based on the average appraised current market value of undeveloped land in the vicinity or subdivision, as determined by the county assessor.

Funding Programs

From as early as 1909, legislation had been enacted to help towns and cities acquire and preserve areas for recreational use. Funding for the acquisition of additional parkland can be difficult for many cities, but there are statewide programs available that can help alleviate the tedious procedure of parkland financing. The following discussion provides a summary of these options.

Special Assessments- State law authorizes local governments to assess property owners for open space and recreational purposes. The affected landowners must be beneficiaries of the open space and the size of the individual assessment levies must be proportional to the amount of each per-parcel benefit. Assessment levies must not exceed the project's total cost.

- Park and Playground Act of 1909
- Assessments under the Landscaping and Lighting District Act of 1972
- Developer's Fees
- General Obligation (G.O.) Bonds
- Adopt-A-Park
- Special Tax Revenues & Redevelopment Agency Financing

FUTURE DIRECTIONS

Currently, neighborhood parks are few in number and developed acreage is about half of the City's adopted standard. The future parks that are planned will help the City to meet their standards. In order to provide park and recreational facilities for current and future demand, the City shall continue to use all available funding mechanisms, such as a developer's in-lieu fee, by which fees or land (or both) may be collected by the City to develop existing and future park areas.

Parks play an important role in attracting families with children, retirees and tourists. As parks are developed, these areas should reflect the needs of the residents they serve. The City's parks (and open space areas) shall reflect the pride and respect residents have for community and the surrounding desert environment. The City's rapidly growing population only emphasizes the need for these vitally important recreational facilities, which are essential to encourage social interaction and community cohesion.

The City also needs to prepare a Master Parks and Recreation Plan that fully assesses the adequacy of existing facilities and evaluates the need for additional park lands and facilities. The Master Parks and Recreation Plan will provide detailed guidance to the City on future park types and locations, and should also elaborate related amenities for these park lands.

The Master Parks and Recreation Plan may also address the open space and conservation lands, including regional assets and those under the City's direct control. While open space and conservation lands complement the City's park facilities, they are not intended to serve as or to count against the City's need for lands that provide neighborhood, community or regional park facilities. Nonetheless, the City's open space and conservation lands will provide important opportunities for hiking and passive enjoyment of the region's natural beauty.

TRAILS, PATHS & BIKEWAYS

Urban paths and open space trails are an important asset to a community. In addition to creating a buffer between land uses, and providing additional recreational opportunities, the establishment of a pedestrian path and trail system will ultimately provide important alternative transportation opportunities. These alternative routes will create greater accessibility to commercial areas, as well as recreational and open space areas.

Bicycle-ways not only provide a quick and convenient alternate form of transportation, they also reduce air and noise pollution attributed to motor vehicle use. Incentives for bicycle use, such as a reduction in required parking spaces in exchange for the placement of bicycle racks, are becoming more common, as traffic and pollution levels continue to increase.

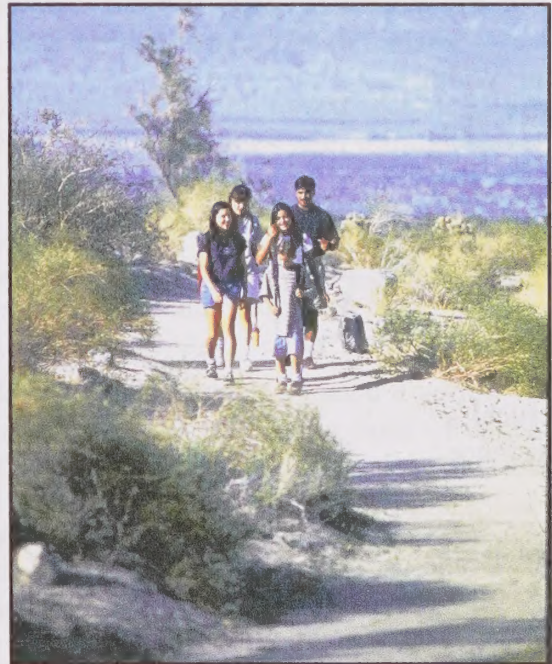
The State of California, recognizing the importance of a community trail system, has passed legislation directing communities to consider the need for trail systems. The California Bicycleways Act (Streets and Highways Code 2370-2394) requires cities to comply with safety design criteria and specifications prepared by the Department of Transportation. The California Recreational Trails Act (Public Resources Code Section 5076) requires local jurisdictions preparing an Open Space Element to consider demands for trail-oriented recreational uses. Streets and Highways Code 1712 authorizes cities to enter into agreements for the acquisition, construction or maintenance of bicycle-ways.

Types of Trails

There are generally two types of trails that are applicable to the City's active trail system: urban trails and open space trails. Urban trails are expected to serve as alternative transportation routes, through the community, linking residential neighborhoods with central areas in the City. While open space trails function as an access to the City's natural and scenic resource areas, and are generally used for hiking, horseback riding and mountain bike riding. Together, urban and open space trails create a multi-use trail system that can accommodate all types of users, and provide access to a variety of areas.

Trail Development

When urban and open space trails are developed, certain design concepts must be taken into consideration. Accessibility and functionality are the most significant factors. Open space trails should connect existing open space areas, parks, schools, and scenic routes, and should be located within natural surroundings, while urban trails should connect the City's residential neighborhoods with commercial areas, schools, parks, and open space trails, and be centrally located. Both types of trails should utilize appropriate signage for directional guidance, and consist of suitable designs and materials.



**Table III-38
Trail Standards
Urban Standards (Maximum Accessibility)**

Item	Bicycle + Pedestrianⁱ	Bicycle Onlyⁱ	Hiking Only	Equestrian Only^{iv}
Min. Width (one-way)	10'	5'	5'	8'
Min. width (two-way)	12'	8-10'	8-10'	10'
Surface	hardened e.g. asphalt ⁱⁱ	hardened	hardened	hard-packed
Shoulder	2' min.	2' min.	2' min.	2' min.
Vertical Clearance	12'	10'	10'	12'
Cross Slope	2% max.	2% max.	2% max.	2% max.
Max. Grade	5%	5%	5%	max. limit is erosion control

Open Space and Natural Area Standards

Item	Bicycle +Hiking + Equestrianⁱⁱⁱ	Hiking Only	Mountain Bicycle Only (foothill & mtn. areas)	Equestrian Only
Min. Width (one-way)	6-8'	2'	2'	6'
Min. width (two-way)	8-10'	2'	4'	8'
Surface	firm all-weather & unobstructed	minimize erosion	minimize erosion	minimize erosion
Shoulder	2' min.	2' min.	2' min.	2' min.
Vertical Clearance	10'	8'	8'	12'
Cross Slope	3% max.	3% max.	3% max.	3% max.
Max. Grade	5%; rest & turning areas every 200ft. min.	max. limit is erosion control	max. limit is erosion control	max. limit is erosion control

- Notes: i Standards meet CalTrans Class I Bicycle-way standards.
- ii. Where equestrian uses occur, an appropriate trail material, such as decomposed granite, should be provided on the equestrian portion of the trail only; the remainder of the trail should use materials appropriate to its intended use.
- iii. Multiple use trails with both bicyclists and equestrians should be no narrower than 6 feet. A combined use trail with hiking and bicycling only should be no narrower than 4 feet.
- iv. A maximum of 20% vertical grade or as needed for erosion control, whichever is less. This can be exceeded for short distances (no more than 200').

STANDARDS

The Institute of Transportation Engineers (ITE) has established standards for travelway widths for safe operation of bicycles: A two-way urban trail should have a width of 8 to 10 feet. One-way urban trails should have a width of 6 to 8 feet to ensure safety. Trail standards for all types of trails are included in Table III-42, above. The guidelines in this table are representative of national trails standards and serve as a useful reference for the development of City-specific standards.

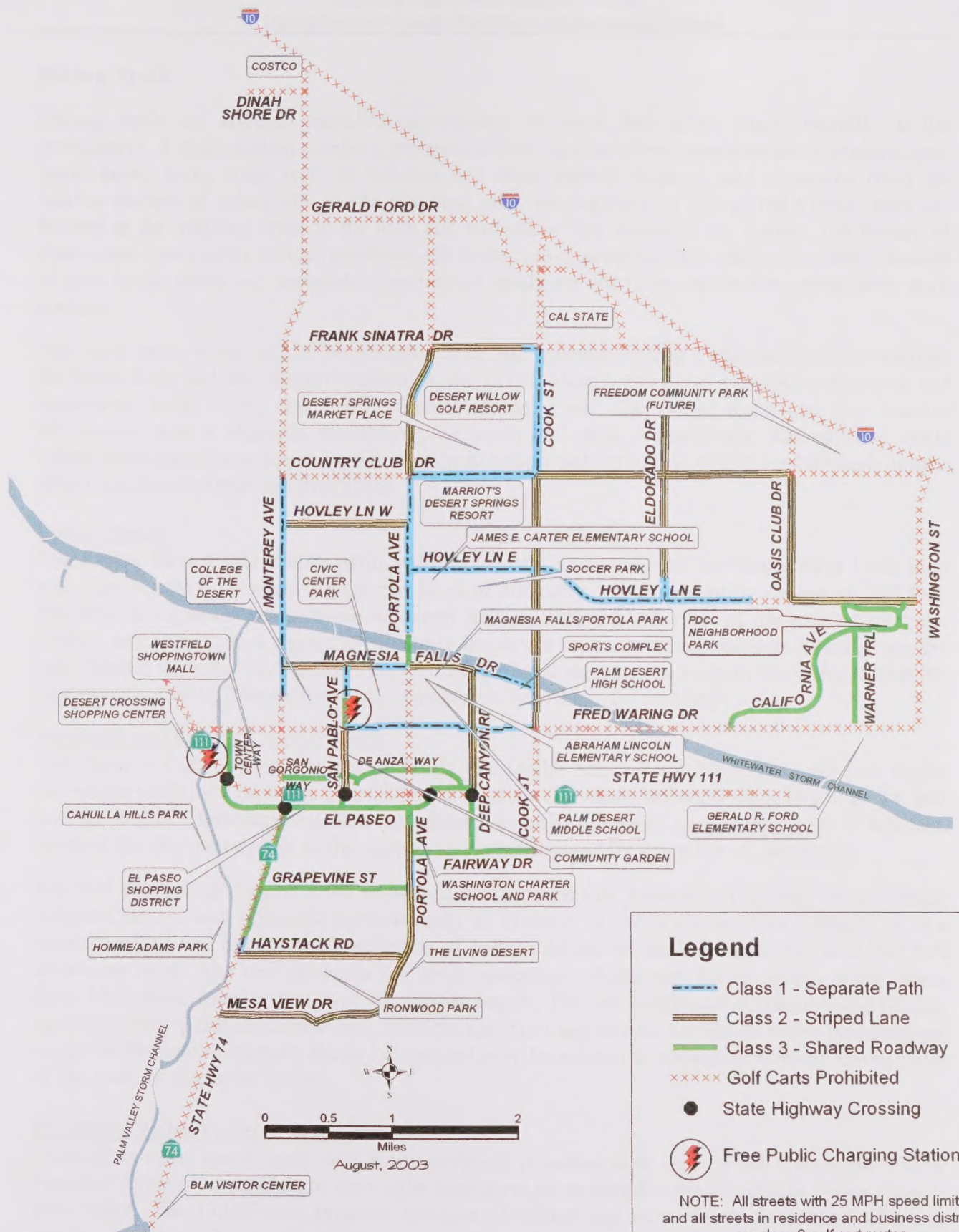
Bikeways

Bicycle ways and facilities are an important component to the City's recreational needs. Exploiting opportunities for bicycling can decrease vehicular traffic. Due to the favorable terrain and climatic conditions that exist in Palm Desert and the vicinity, bicycles account for a number of daily trips in many areas of the community. Nationwide, it is estimated that 40% of the population owns bicycles. The nationwide bicycle ownership percentage applied to the City's current (2001) projected population of approximately 40,000, indicates that 16,000 bicycles could presently be used in the community for utilitarian or recreational use.

Bikeways Classifications

1. Class I bike way provides a completely separated right-of-way designated for the exclusive use of bicycle. Interaction between pedestrians and vehicles is minimized.
2. Class II bikeways are signed and striped bicycle lanes within the paved section of the street, providing for the exclusive or semi-exclusive use of bicycles with through-travel by motorists or pedestrians prohibited.
3. Class III bikeways provides for a right-of-way designated by signage or permanent markings with shared use with motorists, and with pedestrians when sidewalks are not provided.

In the General Plan planning area north of Interstate-10, the County has designated a variety of trails and bikeways. The County General Plan only delineates Class I bike paths, none of which have yet been developed. These include future bike paths along Ramon Road, Rio del Sol (Bob Hope Drive extended), Washington Street, Thousand Palms Canyon Road and Dillon Road. Bikeway development standards are comparable to those in the City General Plan.



The preserve also includes pools created by groundwater forced to the surface by the diking action of the San Andreas Fault, which passes through the preserve. In addition to hiking, several of the preserve's trails permit horseback riding. While the palm oases are the main attraction, the preserve provides important opportunities to observe unique desert wildlife, which take advantage of the oases, sand dunes and other unique habitats that occur there.

Thousand Palms & Sky Valley Trails

A variety of future trails are set forth in the County General Plan in the northern General Plan planning area (Thousand Palms and Sky Valley). These include regional and community trails planned for development north of Ramon Road. The County plans development of regional trails throughout the Coachella Valley Preserve for the fringe-toed lizard, along the toe of slope of the south face of the Indio Hills, along Dillon Road and into East and West Deception Canyons and Joshua Tree National Park.

Community trails are proposed primarily within and around the community of Thousand Palms. As mentioned above, none of these trails have yet been developed. Neither does the County General Plan provide specific design standards for community or regional trails, although County hiking and equestrian trail standards are comparable to those set forth in the City General Plan.

Joshua Tree National Park

Abutting the northern boundary of the planning area is Joshua Tree National Park. The park has numerous trails through its 794,000 acres, which traverse and explore both the Mojave and Colorado deserts. Trails within the park generally begin from within the park's boundaries, however some are accessible from the western border. As a National Park, Joshua Tree attracts millions of visitors each year, and is an excellent resource for a variety of recreational opportunities including hiking, camping, rock climbing and wildlife viewing.

Coachella Valley Multiple-Species Habitat Conservation Plan

As with all hiking facilities, the public's use of trails must be well balanced with the protection and preservation of sensitive wildlife and their habitat. The Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) currently being prepared (2003) addresses these issues.

To protect biological resources and habitat conserved in its planning areas, the MSHCP may include limited access to certain areas, seasonally restricted uses, closures of trails, or be limited to permit or guided hiking only. A wide range of management approaches are being considered to balance biological resource protection with the recreational needs of the community.

The Coachella Valley MSHCP will also provide standards and guidelines for the development of trails within the various preserves to be established by the plan. A wide range of additional hiking and equestrian opportunities are expected to result from the plan's adoption and implementation, which will benefit Palm Desert and other Coachella Valley communities.

Trail System Costs

The costs to develop a trail system can be significant when considering land or right-of-way acquisition, trail construction and continuing operation and maintenance. Therefore, it is important to secure the use of appropriate and cost-free easements from public and private landowners whenever possible. Taking into consideration construction costs alone, the average costs, based on the estimations of open space agencies in California and the United States are \$50,000 to \$80,000 per mile for a paved trail, and \$6,000 to \$15,000 per mile for an unpaved trail. These costs include the construction of directly related facilities that may be required for a given trail, including signage, parking lots, bridges and wash crossings, landscaping, fencing and rest stations. Costs of land acquisition can vary significantly depending on the value of lands for other uses.

Funding Programs and Mechanisms

A variety of funding mechanisms and other methods are available to secure trail rights-of-way, and to construct and maintain these facilities. These include but are not limited to developer impact fees, dedication of easements and rights-of-way, monies from the local Transportation Fund, Adopt-A-Trail programs, donated labor and materials, and granted conservation easements.

FUTURE DIRECTIONS

A multi-use trail system within the City of Palm Desert that consists of both urban and open space trails, will permit pedestrian, riders and hikers to more fully explore and enjoy the City and its environs. Urban trails shall link residents and visitors to urban core facilities and activity centers within the City, while open space trails shall provide access to natural resource and open space areas with exceptional desert landscapes, hillsides and mountain vistas that offer unique surroundings and varied terrain.

Interest in bicycling, hiking and equestrian activities runs high in the City and surrounding areas, and an extensive trail system will provide another type of recreational opportunity, offering a change of environment and enhancement of the quality of life for the community's residents and visitors. The completion of a Valley wide trails network is an important component for providing recreational opportunities throughout the region.

GOALS, POLICIES AND PROGRAMS

Goal 1

A high-quality public park system that meets the City's active and passive recreation needs with adequate land and facilities to provide an appropriate mix of recreational facilities and activities for the City's residents.

Goal 2

A comprehensive urban and open space trails network to meet the hiking, biking and equestrian needs of the City's residents and visitors.

Policy 1

Develop a Master Parks and Recreation Plan, which assures adequate parklands and facilities that meet the immediate and future needs of the community, optimize synergies with COD, Cal-State and other education-based facilities, and updates and meets developed parkland acreage standards as stated in the Quimby Act.

Program 1.A

Expediently initiate and complete a thorough study to result in a comprehensive Master Parks and Recreation Plan. The plan shall define park types in terms of their size, service area and amenities, and shall establish standards for park acreage by type of park (acres/1000 residents) that meet immediate and projected needs. It shall also detail other Quimby Act requirements and feasible financing alternatives.

Responsible Agency: Community Development Department, Parks and Recreation Commission; City Council

Schedule: 2003-04

Program 1.B

As part of the master planning process, a facilities analysis shall be performed on a neighborhood basis to consider and plan to meet the needs of the surrounding residents; results shall be incorporated into the Master Parks and Recreation Plan.

Responsible Agency: Community Development Department, Parks and Recreation Commission

Schedule: Immediate; Continuous

Program 1.C

Investigate the broad range of possible sources of park land acquisition and operating revenue, including park development fees and donated lands collected, in accordance with the Quimby Act, park land maintenance assessments, and funding programs offered by the state and federal agencies.

Responsible Agency: Community Development Department, Community Services Department, City Council

Schedule: Immediate; Continuous

Program 1.D

Plan for and implement the City's parks development and improvement projects through their inclusion in the City's Capital Improvements Program and based upon the adopted Master Parks and Recreation Plan.

Responsible Agency: Community Development Department, Community Services Commission, City Council, Parks and Recreation Commission

Schedule: Immediate; Continuous

Program 1.E

Coordinate and confer with CSSB on opportunities for shared facilities as one way of assuring the inclusion of adequate neighborhood and/or community-scale public parks in the University Park planning area.

Responsible Agency: Community Development Department, Community Services Commission, City Council, Parks and Recreation Commission, CSSB

Schedule: Immediate; Continuous

Policy 2

Assure the development of park facilities that provide safe recreation areas and facilities through the provision of adequate security lighting, fencing, grass areas and other improvements for optimized and safe recreation.

Policy 3

Assure that new residential developments provide adequate on-site recreational and open space amenities consistent with the values and standards of the community and the needs of new development.

Program 3.A

On a case-by-case basis, evaluate the need for and appropriateness of requiring intra-project park and recreation amenities that address the on-site needs of residents within new residential developments.

Responsible Agency: Community Development Department, Parks and Recreation Commission, City Council

Schedule: Immediate; Continuous

Program 3.B

Install proper irrigation systems and institute proper turf management, in accordance with City water conservation strategies, on all playing or open areas (as determined in the proposed Master Parks and Recreation Plan) to enhance use and to make parks cooler and more comfortable.

Responsible Agency: Community Development Department

Schedule: Immediate; Continuous

Policy 4

Utilize the lands within the north area of the city limits, between Cook Street and Monterey Avenue for additional park space, and include a plan for an urban park abutting or in the immediate vicinity of the CalState University campus and appropriate school districts.

Program 4.A

Pursue and encourage master-planned land uses in the north area of the city limits that incorporate parks and other open space areas appropriate for recreational uses, which complement CalState University facilities and provide easy and safe access from surrounding neighborhoods.

Responsible Agency: Community Development Department

Schedule: Immediate; Continuous

Policy 5

Evaluate alternative revenue sources and explore all viable forms of park financing and acquisition methods, to fund the purchase, improvement and maintenance of the City park system, in accordance with the Quimby Act.

Program 5.A

Pursue grant programs sponsored by public agencies, private groups, and foundations for park or open space purchases, development and maintenance.

Responsible Agency: Community Services Department

Schedule: Immediate; Continuous

Policy 6

Review and positively respond to the requirements set forth in the Americans Disabilities Act and special interest groups to assure provision of enhanced accessibility in the planning, design and development of park areas, recognizing the needs of the disabled, senior citizens and other special needs groups.

Program 6.A

Enhanced accessibility shall be included in the planning and development of park areas, in accordance with the Americans With Disabilities Act, including increased wheelchair accessibility, restroom, and other requirements needed for the elderly and physically handicapped.

Responsible Agency: Community Development Department, Parks and Recreation Commission

Schedule: Immediate; Continuous

Policy 7

The City shall monitor the residential demand for and the capacity at Desert Willows golf course, and consider the need, as appropriate for the development of a third municipal golf course to be dedicated to City resident use.

Program 7.A

To meet local demand of golf facilities, the City shall secure lands and proceed with the development of a third municipal golf facility.

Responsible Agency: Community Development Department

Schedule: As capacity at Desert Willows courses is absorbed

Policy 8

Class II bikeways shall be designated on all existing arterial streets, which have sufficient space and capacity to safely accommodate bicycle travel lanes.

Program 8.A

Place Class II bike lane markings and signs on arterials having sufficient width and capacity.

Responsible Agency: Community Development and Community Services Departments, Parks and Recreation Commission, Planning Commission, City Council

Schedule: Continuous

Policy 9

Class II bikeways shall be included on all new and improved arterial streets in the City, where feasible.

Policy 10

Class III bikeways shall only be permitted in the City where Class I or II bicycle facilities are not feasible and where essential regional bicycle route connection is missing.

Program 10.A

The City shall inventory existing major arterial streets for missing regional bicycle route links and shall designate Class III bikeways only where Class I or II facilities are not feasible.

Responsible Agency: Community Development and Community Services Departments, Parks and Recreation Commission, Planning Commission, City Council

Schedule: Continuous

Policy 11

The City shall provide open space trails that provide City residents and visitors access to undisturbed desert and mountain environments, while preserving these resources, including sensitive plant and animal species, in their natural environments.

Program 11.A

The City shall explore and pursue opportunities to develop an expanded trails system and to obtain trail corridors where possible and feasible.

Responsible Agency: Community Development and Community Services Departments; Parks and Recreation Commission; Planning Commission; City Council, US Bureau of Land Management, Coachella Valley Mountains Conservancy

Schedule: Immediate; Continuous

Program 11.B

The City shall prepare a mountain trail plan in consultation and cooperation with other responsible agencies and organizations.

Responsible Agency: Community Development and Community Services Departments; Parks and Recreation Commission; Planning Commission; City Council; Coachella Valley Mountains Conservancy, US Fish & Wildlife Service, US Bureau of Land Management

Schedule: Immediate; Continuous

Program 11.C

The City shall participate in and encourage regional trail planning efforts and cooperate with other agencies and cities.

Responsible Agency: Community Development and Community Services Departments, Parks and Recreation Commission, Planning Commission, City Council, CVAG

Schedule: Continuous

Policy 12

Trailheads shall be developed where appropriate and when warranted to facilitate trail access and use.

Program 12.A

The City shall identify accessible areas appropriate for the development of trailheads that connect to local and regional trails systems.

Responsible Agency: Community Development and Community Services Departments, Parks and Recreation Commission, Planning Commission, City Council, CVAG, Riverside County

Schedule: Immediate; Continuous

COMMUNITY DESIGN ELEMENT

PURPOSE

The purpose of the Community Design Element is to set forth fundamental concepts and principles that will assure the highest possible quality of life, guiding and directing the physical design and development of the City of Palm Desert. In this regard, the element is intended to encourage creativity and design excellence in community design and development, which results in a community that is attractive, cohesive and in harmony with the natural setting and surrounding communities. Furthermore, the Community Design Element proposes design concepts and principles that enhance the community's functional characteristics, to create a more livable, efficient and sustainable city.

The Community Design Element helps the City examine current patterns of development, and identifies the City's challenges, resources, and opportunities for enhanced community design. The element also sets forth a land use and conservation ethic that is integral to protecting the City's most important and valuable characteristics. The goals, policies and programs bring together the principals of other elements into an overall set of qualitative guidelines that help enhance community connectivity, preserve the natural environment and improve the quality of living for all residents and visitors. They provide guidance to enhance the appearance of existing and new commercial and industrial development, residential neighborhoods, streets, public facilities, and parks and open spaces. The element is also intended to promote a more sustainable and healthy community.

BACKGROUND

The Community Design Element is interactive with and responsive to several other elements of the General Plan, including Land Use, Circulation, Open Space and Conservation, Parks and Recreation, and Arts and Culture. The Community Design Element addresses the fundamental issues of these other elements and combines these ideas in a single element. The Community Design Element is effective when the management of land use, traffic, community safety and appearance, and environmental systems promotes continuity, uniqueness and a special sense of place. On a more basic level, the Community Design Element reflects sensitivity to community quality, environmental integrity and a desire to preserve the best qualities of this resort residential community, while addressing the more practical and functional needs of its residents, businesses and visitors.

The state of California recognizes the necessity of standards in community design and development in Government Code and regulations. Government Code Section 65302 states that, "the General Plan shall consist of a statement of development policies and shall include diagram or diagrams and text setting forth objectives, principles, standards and plan proposals." Government Code Section 65302(a) addresses standards that affect population density and building intensity. Mandates for the preservation of open space lands are set forth in Government Code sections 66477 and 65470.

State legislation also reinforces the adoption of community design standards. The 1990 California Legislature enactment of Assembly Bill 325, the Water Conservation In Landscaping Act, recognizes the state's responsibility in mitigating the effects of urbanization on its finite water resources, and the potential savings from water conserving landscape practices. In accordance with the act, the City has adopted a water conserving landscape ordinance, which meets conservation targets and addresses community design concerns. Water conservation in landscape design is having a profound effect on community design.

By implementing the essential goals and policies of the Community Design Element the City confirms its support for sustaining and enhancing the quality of life and the built environment in the City. In addition to staff-level implementation of community design standards, the Architectural Review Board Commission, Planning Commission and City Council review and approve public and private development design proposals. Environmentally and aesthetically sensitive design is essential to the preservation and enhancement of the character and values of the community. Controlling the type and intensity of land uses, managing transportation, flood control facilities, and protecting community open space and conservation areas must compliment both the built and natural environments.

The Resort Community: A Tale of Two Cities

Not all segments of the community will measure quality of life by the same yardstick. Developments and neighborhoods in Palm Desert can be divided into two types, A) residential and hotel resorts that serve the tourist, vacation and second home markets, and B) developments and neighborhoods that are geared to the City's permanent population. Many of the needs and community design issues of each differ, while others are common concerns of all facets of the community.

Vacationers and Seasonal Residents

Residential resorts and vacation-oriented developments serve seasonal residents (snow birds) and short-term visitors. These developments range from gated golf course communities to timeshare and hotel-based resorts typically with their own golf and other recreational amenities. Seasonal residents and visitors to these developments are focused on vacationing and relaxation in a tranquil and largely self-contained environment, and do not typically involve themselves in the full range of community activities. Therefore, the internal relationships within these developments are more important than their relationship to some of the City's commercial districts, institutions, parks and open space, and other public facilities. Seasonal residents in the destination resort communities are typically less interested in engaging in the external neighborhoods of the general community. Nonetheless, the quality, attractiveness and safety of the community have a direct effect on the desirability of Palm Desert as a destination second home and tourist resort.

Permanent Resident Community

Permanent residents benefit from the full range of commercial, institutional and recreational services and opportunities available in the City. These include the many services and uses enjoyed by the City's vacationers and seasonal residents, including fine dining, specialty retail, entertainment, golf and other recreational amenities.

Permanent residents are the core of the community and typically live in neighborhoods where knowing and interacting with neighbors is the essence of a tight-knit community. Ideally, permanent residents, including families with children, should have a reasonable expectation of safe and convenient access to parks, shopping and other community services and amenities without the need to travel great distances or to rely primarily on the arterial roadway network.

Community Design and Quality of Life

The essential purpose or goal of effective community design is to assure the highest possible quality of life for the City's residents, whether part- or full-time, and for those who come to visit and vacation here. Community design issues encompass all aspects of the City, including its residential and commercial neighborhoods. Properly designed and integrated neighborhoods include a diverse cross section of the community and provide convenient opportunities for social interaction between residents. They are also small enough and have a sufficient level of interconnectivity to retain a distinct neighborhood identity. Creating and sustaining distinct neighborhoods is essential to the concept of community.

In general terms, quality of life can be addressed by assuring the following:

- An integrated community with a full range of housing, shopping and commercial services, work places, schools, parks and open space, and civic and institutional facilities essential to the daily life of the residents
- A land use pattern that efficiently distributes homes, employment centers, parks, schools and other institutions, shopping and services
- A logical and efficient hierarchy of streets that are part of a connected network, which disperses traffic by providing a variety of pedestrian and vehicular routes to any destination
- A distributed system of physical and service infrastructure that provides for the efficient delivery of utilities and public services

SUSTAINABLE COMMUNITY DESIGN

The concept of sustainable communities has only emerged fully in the last decade and sustainability still has many definitions and meanings. From an economist's perspective, sustainable community design is a means of ensuring the maintenance of our standard of living and quality of life. From an ecological perspective, sustainability involves a holistic view of the physical environment that includes not only humanity but also the physical and ecological context in which we are embedded. The sustainable community is integrated with its environment in a manner that optimizes its maintenance over time.

Major elements of the sustainable community include environmental health, energy efficiency, land use relationships and efficiencies, resource use and management, and efficient traffic and circulation. Economic vitality is also a primary component of sustainable quality of community design.

Community Design Principles for a Sustainable Quality of Life

Some of the existing patterns of urban and suburban development can seriously impair our quality of life. The symptoms include traffic congestion and air pollution, the loss of open space, the need for costly improvements to roads and public services, the inequitable distribution of economic resources, and the loss of a sense of community by urban sprawl, disconnectedness and socio-economic isolation. Some of the fundamental principals that can help assure sustainable quality of life include the following:

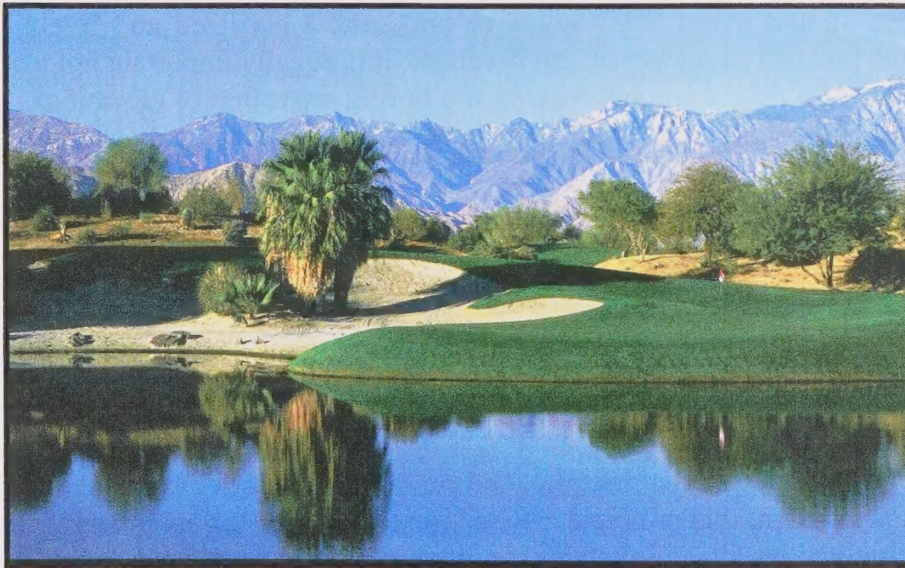
- A. A balanced and integrated community providing safe and convenient access on local streets and containing a diversity of housing, shops, work places, schools, parks and civic facilities.
- B. A community with a diversity of housing types, sizes and affordability that serves residents from a wide range of economic levels and age groups.
- C. A sufficiently diverse local economy that provides a range of sustainable employment opportunities for the community's residents.
- D. Centers of community focus that combine residential, commercial, civic, cultural and recreational uses.
- E. Public spaces that encourage the congregation and interaction of people from all walks of life and at all hours of the day and night.
- F. Streets, pedestrian paths and bike paths that provide fully connected and interesting routes to all destinations, encouraging pedestrian and bicycle use and optimizing safe integration with vehicular traffic.
- G. A community plan that preserves natural terrain, drainage, and vegetation of the community within parks, greenbelts and community open space areas.
- H. Community, development and building design that conserves energy and material resources, optimizes the efficient use and recycling of water, encourages use of drought tolerant landscaping and minimize waste.
- I. Siting, design and orientation of buildings that contributes to the optimal seasonal use and avoidance of solar energy, enhances natural ventilation, and reduces overall energy demand.

Regional Design Principles

In addition to those principles that should guide community planning and development, additional principles that address regional issues are also important. This is especially true in the Coachella Valley where urban development and jurisdictional boundaries are largely contiguous and interact with one another. The following regional principles address regional interrelatedness.

- A. Coordinate with CVAG in regional land use planning integrated within the larger transportation network built around major transit nodes and facilities, including bus routes, rail stations and freeway interchanges.
- B. Coordinate regions environmental planning to provide a continuous system of integrated ecosystems, open space and wildlife corridors based upon the conservation, preservation and restoration of local environments and habitats.
- C. Encourage regional architectural styles and design concepts that encourage the development of local character and community identity, emphasizing the use of materials and methods of construction responsive to local conditions, and exhibiting continuity of history and culture, and compatibility with the physical and aesthetic environment.

Understanding and Integrating the Natural Environment



The natural environment of the Coachella Valley is the physical complex of geology, topography, climate and ecological resources. It is the "natural" setting of the City and has influenced how the community and the region have developed. Designing within the parameters of the natural environment can pose several constraints and opportunities for devel-

opment, which if managed wisely can and have enhanced the community's quality of life. For instance, flood control facilities primarily serve to control and convey storm runoff, but they also function as wildlife corridors and as open space for recreational activities, such as hiking, equestrian, biking and golf. Environmentally sensitive community planning also supports the use of open space buffers, building and landscape designs that conserve energy and water, recycling valuable resources, reducing exposure to toxic chemicals in the environment.

Combined, these strategies value and preserve essential resources while expanding economic growth and opportunity; they can be characterized as being environmentally responsive. By practicing environmental responsiveness, it is possible for new development not only to minimize damage to the local ecosystem, but also to improve the surroundings. In fact, environmentally responsive development can serve as an "economic engine" for bringing about ecological restoration. This process of sitting lightly on the land, even when modifications to the landscape are made, is the essence of environmental responsiveness.

Harmonizing Community and Development Design

An essential aspect of community design involves harmonizing new land uses and developments with the existing built and natural environments. Design strategies can allow the City to retain the low intensity resort-residential community character in new development, even in areas where higher development densities are realized. Sensitivity to height limits, using natural materials, and complementary colors and tones for building surfaces, and the generous integration of open space into community design are in keeping with the essential character of the community.

Flexibility and sensitive design evaluation, and the ability to see the positive qualities of various architectural styles are also essential to a responsive design review process. If quality design is lacking and cannot be secured from the developer or architect, then unsatisfactory development proposals should not be approved. Sensitive design harmonizes with surrounding buildings and the environment, avoids excessive disruption and does not overtly compete for attention.

Contrasting design approaches should avoid being abrasive and seek a civilized and lively integration with the existing and planned development environment. It is equally important not to homogenize the design elements of a neighborhood, leaving it a boring repetition of elevations, rooflines and building materials and colors, or to promote an eclectic and unrelated collection of styles.

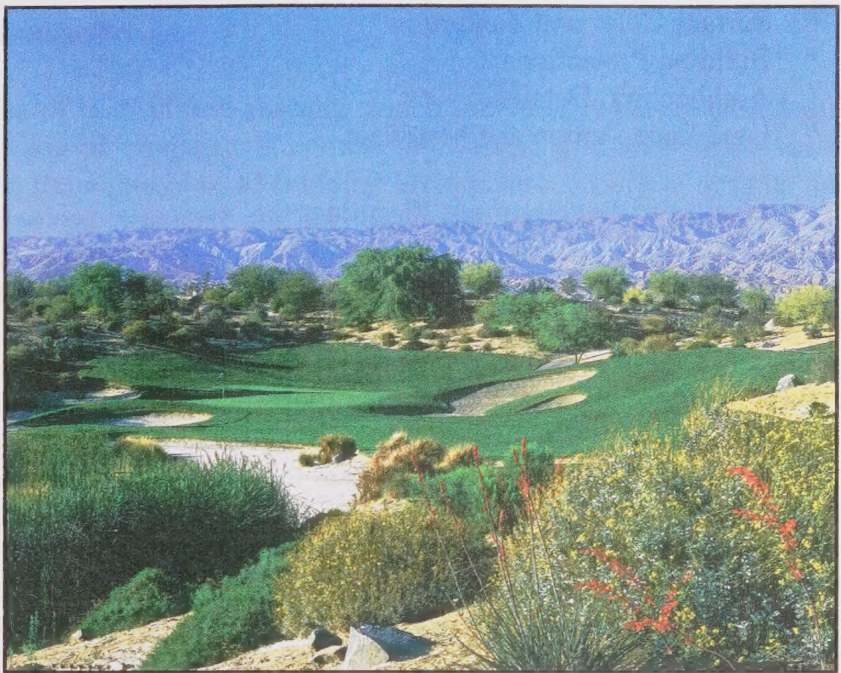
Community Design and Continuity

Community design, cohesiveness and continuity require a holistic community vision while maintaining and preserving the City's unique and cherished qualities. This perspective also recognizes the characteristics that have been handed down overtime, and that create connections to the natural and historic features of the City.

Continuity provides unity and stability to the community, and develops a sense of permanence and pride of place. In community design, this principle can be maintained through an adherence to quality land and site planning and architectural styles, an integration of desert landscaping, preservation of open space land and valuable natural resources, and the development of functional circulation patterns. Community design and continuity not only strengthen the City, but also help to establish meaningful relationships between the City's built environment, its residents and its natural environment.

Establishing a Sense of Place

Establishing a sense of place, or placemaking, is an important dimension of sustainability and community design that enhance the quality of life. People need to feel attachment for a place in order to invest themselves in the community. To foster a sense of place, communities must cultivate built environment and settlement patterns that are enriching and uplifting, inspirational and memorable, and which create a feeling of belonging and attachment.



A sense of place can also be nurtured by understanding and respecting the bioregional context of the community, including the climate and geography, open space lands, and native flora and fauna. Placemaking in community design also respects the history and character of existing and man-made features that have added to the familiarity of the place.

Lastly, placemaking requires that a special effort be made to create and preserve places, rituals and events that encourage greater attachment to and cohesiveness of the social fabric of the community. This can be attained with the development of gathering spots and public places, such as the Civic Center Park, as powerful focal points within the community, and by planning activities that promote community attachment and social interaction.

COMMUNITY FORM AND DESIGN PLANNING

The assessment of site planning and building design should determine the correlation between and influence of new and in-fill development to other structures and the environment; that is, the planning context must be fully considered. Careful consideration also needs to be given to the location and components of proposed development. Existing conditions should be a point of departure for area planning and design, optimizing possibilities while efficiently working around limitations. Planning and design criteria assist in determining a projects compatibility with the surrounding area. These criteria include:

- * Planning Context Assessment
- * Site Analysis and Development Planning
- * Building Height
- * Building and Structural Setbacks
- * Proportions and Massing
- * Pattern and Rhythm of Structures
- * Roof Types and Materials

- * Surface Color and Texture
- * Building Projections
- * Architectural Details
- * Landscape Design and Materials

Site Analysis and Development Planning

Understanding the natural conditions of the land through thoughtful site analysis must be the initial step in addressing development constraints and opportunities. This process is also essential in matching appropriate development with the characteristics of a site. On a landscape scale, this planning is embodied in the Land Use Element, while site specific analysis and planning are based upon the above-cited criteria. While land planning involves the consideration of area-wide elements, site planning primarily involves the distribution of buildings, parking, driveways and landscaped open space areas over a site. The development site plan establishes the relationships between structures, parking and open space areas to the street and surrounding lands. The impacts of site design are not always easy to visualize and assess without the development of a detailed site plan. Frequently, the complexity or importance of a proposed development may warrant preparation of perspective renderings of the plan and structures.

Accurate representation of proposed future development can easily be accomplished through the use of inexpensive and powerful computer-based visualization tools. Care should be taken not to allow artistic applications of color, landscaping and graphic “eye wash” to obscure or misrepresent the final built product. Together with building architecture, site planning is the critical design parameter determining the compatibility of proposed development with the existing development in the area and the character of the community.

Building Proportions, Height and Setbacks

Structures should be planned as integrated elements within the natural environment. This primacy is achieved by establishing guidelines for building scale and proportion, structure, height, and setbacks that are environmentally sound and sensitive.

Within the context of existing development and appropriate design, new structures should be similar in height to and compatible with other buildings in the vicinity, with the goal of preserving and enhancing design qualities of the built environment while maintaining important viewsheds. Assigned setbacks should be harmonious with the streetscape, surrounding structures and scenic resources. Variations in building massing are encouraged but should reflect a sense of compatibility as a group.

Building proportions should neither dominate the street nor other structures, and should limit the fragmentation of viewsheds to the greatest degree practical. New developments can establish an important baseline for a neighborhood and provide a model against which to judge subsequent proposed development. Occasionally, it may be appropriate for new development to be equivalent or subordinate to older structures and the prevailing development pattern. Generally, however, the height and width of building elevations should not be dramatically out of character with existing neighborhood development, the streetscape or natural scenic viewsheds.

Pattern and Rhythm in Community Design

Nature provides varied examples of pattern and rhythm, which are instinctively pleasing and inspiring. These natural patterns can be emulated in community design, primarily expressed in the distribution of structures and the expression of building architecture. Roofline designs and the voids and solids of buildings can articulate the recurrent and alternating patterns of the surrounding landscape, including the slopes and peaks of the hills and mountains. The patterns and rhythms that result from new and existing development should create a theme that conveys harmony and coherence between structures and the natural environment. At the street level, the viewer should be provided an interesting and varied integration of structures, hardscape and landscaping that tie these elements together in an effective and pleasing manner.

Roof Types and Materials

The design of roofs and the selection of roofing materials is an essential design element that effects how well a building is integrated into its context. Roof types and materials can play a critical role in either complementing or degrading the cohesiveness of the built environment and the natural scenic viewshed. Roof types provide a variety of possibilities for contrasting or imitating other elements of the built or natural environment, and range from flat to a multiple array of hipped roofs. The same design criteria of scale, pattern and rhythm are applicable to judging the compatibility of roof design and materials. Excessive building height is frequently associated with the desire to create more volume within a building, to accentuate the building facade or to accommodate roof-mounted HVAC and other equipment. Roof design must be balanced with the building elevation it helps to create.

Color and Surface Texture



The Coachella Valley is frequently associated with the sunny and bright conditions of the Mediterranean and these conditions make the selection of surface texture and color especially important. In recent years, surfaces and colors that emulate and complement the course and warm tones of the surrounding environment have become highly desirable. Shiny or highly reflective finishes produce glaring surfaces that do not complement or integrate well with the viewshed or are not pleasing to the eye. Important

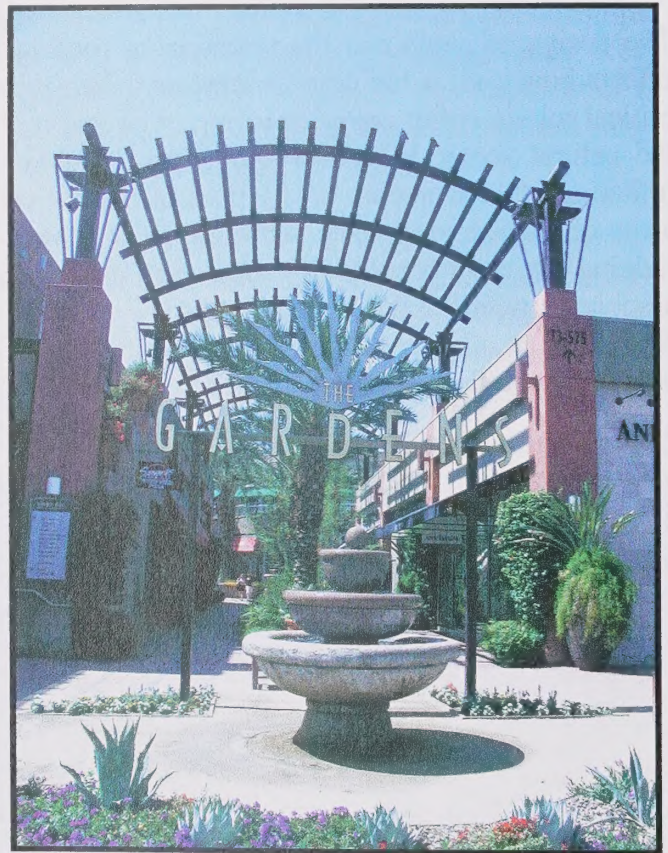
examples have emerged in the City of how contrast can be made compatible within broader standards through the juxtaposition of architectural motifs and the use of contrasting, unusual colors and building materials.

The surface textures of buildings and other structures differ from the patterns and rhythms of building volumes and spaces in that texture is provided on a substantially reduced scale and may not be evident from a distance. Texture seldom acts as a strong design element that is equal in visual effect to architectural pattern and massing. Over time, architectural tastes and styles change, and while the use of strong color can play a dominant role in the design of structures, color is easier to change once construction is completed. Building surface textures can range from smooth adobe-type stucco or plaster to fluted or split-faced concrete aggregate block. Texture must be carefully considered to assure that it complements the overall design while being compatible with other building materials.

Building Projections and Architectural Details

While the first and most essential concern of building design lies in the creation of interior space that serves the planned function of the building, the development of architectural style and detail should also be integral to design. The articulation of a selected style is expressed in the details and projections that grow out of the building and play important functional and aesthetic roles. Architectural projections and details can address issues of screening and privacy, while also affecting how well the building harmonizes with surrounding development.

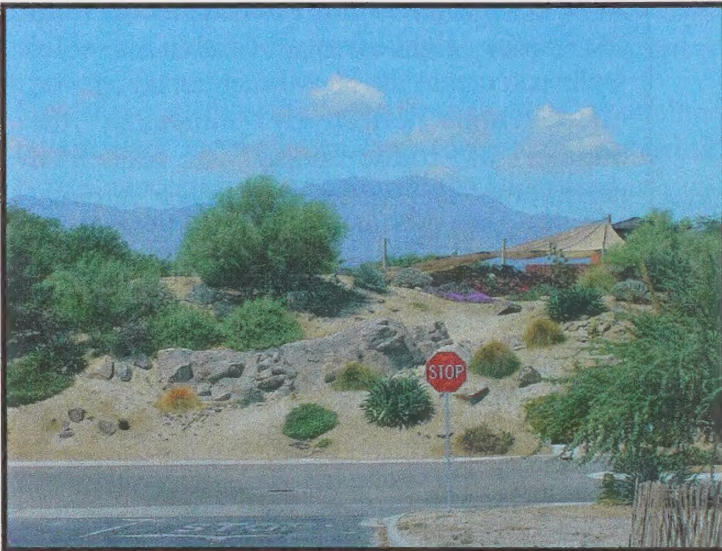
Residential living space can be further enhanced through the use of porches and verandas that provide protection from sun and wind, while providing a venue for communication with passers-by and enhancing residential community cohesiveness. Architectural details, whether simple or ornate, may represent legitimate design principles, however buildings of differing architectural styles can clash or strongly contrast with surrounding development, and thereby may suffer from the comparison. Once again, the context of the building's built and natural environment must be carefully considered in determining the appropriateness of a particular architectural style.



Landscape Design and Materials

Landscape design is an essential part of accomplishing quality community design and has a profound effect on the quality of life enjoyed in the community. Desert conditions require creative landscaping designs responsive to limited water resources and to the natural setting. The desert terrain includes a versatile collection of plant life that should be explored and employed in all scales of landscaping.

Rock and stone arrangements, fountains and other water features further enhance, complement and contrast with the native scenery. Proper landscape planning requires special attention to the water needs and exposure of plantings, and the selection and cultivation of suitable plant materials. While landscapes are visually important, they can also create micro-climates providing protection from strong winds, shade from the intense summer sun, and reduced outdoor and indoor temperatures.



One of the most prominent and visible exterior features of neighborhoods, private communities and other developments is parkway landscape treatment. Design can range from the formal to the “natural” or combinations of both approaches. Formal design may include ordered rows of date palms or other distinctive trees, regularly interspersed with equally ordered shrubs and beds for annual plantings.

Less informal designs seek to imitate nature by interspersing native and non-native desert plantings in more of a

free-form or random pattern. Groupings of major elements and the use of lawn areas may also be integrated into both more and less formal designs. The need for progressive water conservation and control of landscape maintenance costs has also prompted the greater use of native and non-native drought-tolerant planting materials. The City has been a leader in the promotion of these desert landscape materials and design themes.

Residential Neighborhood Design

Residential neighborhoods are distinctly different from places where we work and shop, and should be viewed as refuges from the noise, light, traffic and commotion of City business districts. Nonetheless, the location of residential areas and their accessibility to neighborhood-serving commercial and community centers is also an important consideration. The push toward a more efficient use of residential lands has spurred development of higher density neighborhoods with integrated and well-distributed open space areas, narrower streets and an emphasis on walking and bicycling.

The cohesiveness of the neighborhood is substantially affected by the appropriateness and quality of architectural design. Architectural compatibility and variety can be established throughout the neighborhood through the coordinated and complementary use of various design components, including building colors, roof design and tile color, window and garage door treatment, and architectural building accents and details. These components should be mixed to create a balance of variety, compatibility and conformity or cohesion.

The City is host to numerous gated communities designed with walls and perimeter landscape treatments consisting of wrought iron, stuccoed concrete block, plain and painted slump stone, split-faced block, plastered, brick-capped or tile accented, and intermittent columns or pilasters. Walls may be straight, stepped or meandering. Interspersing solid walls with wrought iron fencing provides views into development open space areas and relieves the closed in feeling that walls can engender along roadways. While walls may vary in height, they are generally not to exceed six feet above grade.



In addition to closing off developments from the public right-of-way, continuous solid walls can create the above-mentioned canyon effect, while effectively mitigating the impacts of traffic noise on residential neighborhoods. Wider parkways provide additional wall set backs and landscape treatment that reduces the enclosed feeling. Wall breaks and fenestration along public rights-of-way help to integrate private community open space and viewsheds with those of the traveling public. The City should encourage the continued use of this type of viewshed window as a means of reducing the tunnel effect and preserving scenic vistas.

Open Space and Parkland

Traditional suburban development typically divides land into a checkerboard layout of nearly identical residential lots with no designated open space. The result is a repetitive landscape of home lots and streets. This style of development, which is permitted by many local zoning ordinances, can be inefficient and consumes open space and fragments wildlife habitat. However, by carefully clustering houses on smaller lots an efficient, conservation-oriented subdivision can provide the same number of buildable lots as a conventional subdivision and still preserve substantial open space.

This integrated planning approach not only reduces development costs by reducing the roads and utilities that must be built, it also helps foster a greater sense of community among residents. Walking paths and recreation areas get people out of their homes to meet neighbors and enhance neighborhood cohesiveness. Homeowners have smaller lots to care for and yet everyone shares attractive vistas and a community sense of spaciousness. Access to open space and conservation of habitat, scenic landscapes, ecologically valuable land and recreational areas are important components of livable communities and healthy economies.

Landmarks and Focal Points

Other important elements of community include landmarks and focal points, which lend identity and character to the community. Landmarks or focal points may include natural, historic, architectural, or cultural areas of interest. Major entry points to the City and its neighborhoods also warrant special design consideration. The City's thematic entry signage program utilizing Arizona sandstone and Native American imagery complements the aesthetic and historic context of the community. The City has developed noticeable and distinctive transitions into the incorporated boundaries of the City and this concept is being extended into its neighborhoods. The provision of adequate area for significant landscape or architectural treatment, City entry signage, special paving, and other identifiable treatments all lend character and identity to City entry and other focus points.



Landscape architectural elements in the City include the Civic Center Park, which provides a public park environment and community gathering place profiling date gardens, public art, performance venues and the unique conditions of our desert environment. Landscaping elements, monumentation, sculpture, signage, site furnishings, and open space areas should all be considered in the development standards and policies for landmark or focal point enhancement.

Scenic Highways and Public Viewsheds



Scenic resources constitute some of the most important community assets of the City. Major scenic viewsheds include the San Jacinto, San Bernardino and other mountain ranges surrounding and encompassing the City, as well as the desert floor. Preservation of these scenic vistas has been an important goal of the community. However, various types of land development, the construction of buildings and walls, landscaping, roads and the extension of utility lines and other facilities have all impacted the scenic resources of the community. As viewed from public thoroughfares and private

lands, the City's natural scenic beauty provides residents and visitors with a direct experience of the dramatic landforms that define the character of the community. Promoting a quality image of Palm Desert is very much associated with the City's viewsheds. Scenic resources are visible along essentially all major roadways in the City and its planning area.

Signage and Viewsheds of Public Rights-of-Way

Commercial signage along major roadways provides important business identification but also can degrade the value of the viewshed along public rights-of-way. Balancing the needs of business with the importance of preserving scenic views in an on-going process. The City sign ordinance provides the standards, guidelines and regulations that strike this balance. In some instances it may be appropriate to encourage or require the retirement of existing signs that are inconsistent with the goals, policies and programs of the General Plan and applicable ordinances. Reducing the impacts of

commercial signage can minimize the adverse economic impact on business, while assuring a restoration of the viewshed along existing and planned commercial corridors. Businesses located within Redevelopment Agency (RDA) project areas may be able to participate in and benefit from RDA sponsored sign renovation programs.



Transportation and Community Design



As the community continues to grow, it will continue to face a broad range of transportation-related community design issues. Design issues and details include street signage, bus turnouts and shelters, bike lanes and other on-road graphics, and utility structures and facilities. Roadway congestion and other deterrents to the efficient movement of goods and people can result from inadequate land use and transportation planning. Providing an efficient network of arterial roadways will address area-wide and regional transportation needs, while protecting residential neighborhoods from through-traffic.

Pedestrian and other non-motorized movement must also be facilitated through the development of a continuous system of sidewalks and bike and cart paths that are designed and constructed to assure safety, while complementing the resort character of the community. Such facilities not only meet the needs and interests of the community, but also serve to facilitate the use of non-motorized transportation and will contribute, however modestly, to reducing roadway congestion.

A logical hierarchy of transportation corridors should be designed to link residential neighborhoods, public facilities and commercial areas. Street design must facilitate the movement of people and traffic sensibly. Improving roadways and local transportation systems can reduce traffic congestion and air pollutants. Street systems that assign all traffic through a limited number of intersections at the arterial streets should be avoided to reduce congestion and enhance roadway operations. More options in driving from one destination to another should be offered to motorists as a means of reducing congestion on arterial streets. Creating pedestrian-and-transit-friendly districts allows people to drive to their destination, park once and accomplish their business at multiple outlets.

Community Design in Public Facilities

In addition to the community design issues associated private residential, commercial and institutional projects, consideration of community design issues should also encompass public buildings, utilities, and street traffic control and safety devises that have the potential to detract from the appearance of the community. The attractiveness of the community is important to residents and visitors alike, and the City should consistently make the appearance of the City one of its highest priorities. Current efforts include the development of unique and distinctive desert landscape treatments on major roadways. Desert colors and tones can also be integrated into street signs, traffic signals and lighting standards to soften their impact on the surrounding viewshed.

The design of bus shelters has also been a City priority, with the construction of new facilities that are functionally superior and aesthetically pleasing. Bus shelters can utilize architectural styles that complement the streetscape treatment and elevate the appearance of these utilitarian structures. Utility cabinets located along the street, including traffic signal and telephone switching facilities, are frequently painfully obvious. Efforts to have these installed in underground vaults have been resisted but more success has been had with having these highly visible facilities painted more neutral desert colors. Likewise, overhead utility lines intrude on scenic viewsheds that can be minimized through the City's ongoing program of utility undergrounding.



Art in Public Places

More than any other city in the Coachella Valley, Palm Desert's art-in-public-places program has been an extremely successful enhancement to the attractiveness of the City, and provides significant opportunities to express and reinforce the diversity and cultural cohesion of the community. Consistent with the principle of a resort community that values its mountains and wild places, public art can also integrate

native landscaping to reflect the surrounding mountains and desert dunes and washes. It can include the attentive design and placement of public buildings, as well as placement of manmade monumental sculpture on public lands, or within the rights-of-way of major roadways.

The City's Art in Public Places Program has been created in order to promote an aesthetic experience of the city, balancing the community's physical growth and revitalization of its cultural and artistic resources. The community's aesthetic values are reflected in, and provide the basis for, cultural identification throughout the community's planning efforts.

The Arts and Culture Element presents policies and programs that maximize the role the City can play in encouraging and supporting the cultural environment of the community. In addition to the direct support given to City-sponsored activities and facilities, the City can and should play an important role in helping to encourage and enhance the activities of public and private nonprofit enterprises supporting the arts. The purpose and intent of this involvement is to further a better understanding, appreciation and enjoyment of the cultural environment in the City.

University Park Planning Area: Putting It All Together

The City has created and has the opportunity to implement land use and development principles and plans that complement and optimize the California State University (CSU) Campus and surrounding lands. The CSU campus creates unique opportunities for an integrated mix of institutional, commercial, residential and recreational uses that interact synergistically as a cohesive neighborhood providing an enhanced and sustainable quality of life for residents, employees and visitors.

Lands west of the CSU campus, south of US Interstate-10, north of Frank Sinatra Drive and east of Monterey Avenue comprise the University Park planning area. Residential development in this area should range from affordable housing for students and residents, to single family neighborhoods and golf course-oriented resort homes. The planning area should also include a distinct neighborhood commons comprised of parks and open space, commercial uses and public gathering places, with nearby work, schools and residences.

Commercial development in the University Park neighborhood should range from that which supports the campus, its students, faculty and employees, to neighborhood shopping for local residents. Opportunities for entertainment retail are significant and may range from dinner theaters, nightclubs and conventional restaurants to specialty retail outlets. Strategically and conveniently located neighborhood shopping will meet the day-to-day needs of residents living in this area. There are also important opportunities in this area for the development of business park and research and development centers that take advantage of the CSU campus and programs and provide highly skilled and well-paying jobs.

The University Park planning area is bounded by arterial roadways that provide excellent access to the regional transportation network, while limiting the impacts of arterial traffic on local neighborhoods. Within the planning area, traffic circulation can be efficiently provided by smaller streets and a comprehensive network of pedestrian and bike paths that limit the length of trips and the need for the use of an automobile. This transportation network can also keep most intra-area traffic off of the arterial roadway network.

The University Park commercial district will also benefit from the tourist and resort residential market in this area, including hotels, major timeshare projects, destination resorts and recreational facilities, as well as the substantial passer-by markets along the City gateway arterials of Cook Street and Portola Avenue. The sports and entertainment arena at the University will also complement and support development of an entertainment-oriented retail component along Cook Street.

FUTURE DIRECTIONS

The City has made significant progress in improving the quality of life of its residents and visitors, and can continue to promote these qualities through thoughtful community design. The integrated application of planning, architectural and landscape design standards and principals will provide better guidance and direction to developers and design professionals. Community design considerations, ranging from integrated mixed-use developments to preservation and enhancement of scenic highways, can subtly and profoundly shape the image of the community. Basic criteria to promote good and thoughtful design enhances community cohesiveness and coherence and has allowed Palm Desert to emerge as a thriving and highly marketable resort community. It is evident that community design considerations are directly related to issues associated with land use, traffic, arts and culture, health and safety, economic development and environmental systems.

The Community Design Element can be implemented by several mechanisms, including the thoughtful application of the other elements of the General Plan, the City Zoning Ordinance, and through Redevelopment Plans and Specific Plans for individual project areas. The most effective instrument will be the Zoning Ordinance and associated development codes and guidelines, which set forth specific standards and establish design parameters and guidelines for site planning, building and landscaping, and other areas of community design. On the zoning district level, the Zoning Ordinance will assure that development occurs in a manner consistent with the design goals of the community.

GOALS, POLICIES AND PROGRAMS

Goal 1

A high quality of life provided within a livable, sustainable and balanced community with a distinct character consistent with the City's status as a premier resort community and important commercial center.

Goal 2

An aesthetically pleasing community appearance achieved on all levels, which preserves and enhances the City's resort identity, community image and natural setting.

Goal 3

Standards of community design, architecture, and landscaping that enhance land use and development efficiencies and are integrated with the City's desert setting and natural scenic resources.

Policy 1

Promote and maintain a land use pattern in the City and planning area that efficiently distributes homes, employment centers, parks, schools and other institutions, shopping and services.

Policy 2

Promote and maintain a logical and efficient hierarchy of streets that are part of a connected network, that disperses traffic by providing a variety of pedestrian and vehicular routes to any destination.

Policy 3

Promote and maintain a distributed system of physical and service infrastructure that provides for the efficient delivery of utilities and public services.

Policy 4

Equally apply City community design standards to all private and public sector development projects to assure protection of the community's scenic viewsheds, provide community cohesion and enhance the image of the City as a premier resort community.

Program 4.A

The City Zoning Ordinance and other regulatory documents shall be amended and maintained to assure clear and concise development and design standards and guidelines within which both public and private development project must conform.

Responsible Agency: Planning Department, Planning Commission; City Council

Schedule: Continuous

Policy 5

New development proposals shall be reviewed by City staff to assure compliance with applicable neighborhood plans and to evaluate proposed design features, such as entry statements, recreational facilities, neighborhood parks and schools, and landscaping along public rights-of-way.

Policy 6

Specific Plans shall continue to be used to establish area-specific land use and development standards and guidelines that address community design goals for these areas.

Program 6.A

The City shall continue to implement the adopted Specific Plan and, as appropriate, prepare new plans, and shall review development proposals within the planning area for compliance with plan land use, development and design standards and guidelines.

Responsible Agency: Planning Department, Redevelopment Agency, Planning Commission; City Council

Schedule: Continuous

Policy 7

The City shall promote distinct and identifiable street corridors throughout the City that reflect coherent design, functionality and safety, balancing size and design with local needs.

Program 7.A

The City shall develop street corridor plans that set forth appropriate themes and design features, including wall and building setbacks, signage, street trees and other landscaping, bus shelters and other furnishings, and other distinctive improvements. Priority shall be given to arterials and other major roadways.

Responsible Agency: Planning Department; Public Works Department, Planning Commission, City Council

Schedule: Ongoing

Program 7.B

The City shall establish expanded landscape areas and enhancements at corners and adjoining parkways located along Portola Avenue, including (1) Gerald Ford Dr. @ Portola Avenue, (2) Frank Sinatra Drive @ Portola Avenue, and (3) the planned major intersection between Gerald Ford Dr. and Frank Sinatra Dr. Specific design parameters shall be prepared for these locations.

Responsible Agency: Community Development and Public Works Departments

Schedule: 2004

Policy 8

Areas of special interest, including entry points, scenic roadway viewsheds and community landmarks shall receive appropriate treatment whether part of public or private development proposals.

Program 8.A

The City shall require the submittal of detailed site and circulation plans, landscape, architectural and special signage designs, and other features to assure compliance with community design standards and compatibility with the natural and built environments.

Responsible Agency: Planning Department, Public Works Department, Planning Commission, City Council

Schedule: Ongoing

Program 8.B

Where appropriate and feasible, additional public right-of-way shall be secured from new development at major intersections and other entry and focal points to provide opportunities for special entry treatments and specific transportation facilities, including bus stops/shelters, expanded landscape areas, public art and other distinguishing features.

Responsible Agency: Planning Department; Public Works Department, Planning Commission, City Council

Schedule: Ongoing

Policy 9

Site-sensitive architectural designs and native desert landscape materials shall be incorporated into all public and private building projects to complement and enhance the connection between the natural and built environments.

Policy 10

Commercial, institutional and industrial development projects shall contribute positively to the design objectives of the community and the specific district or corridor design standards and guidelines in which they are located.

Program 10.A

The City shall review all commercial, institutional and industrial development to assure accommodation of pedestrian-oriented circulation, safe and convenient ingress and egress, screening of outdoor storage/loading and other unsightly areas, lighting, signage, and the planting of landscaping to provide an effect of permanency in the near-term.

Responsible Agency: Planning Department

Schedule: Continuous

Program 10.B

The City shall amend the Zoning Ordinance implementing the C-OP designation to assure that appropriate, more restrictive architectural standards affecting building heights and setbacks, and other development standards are applied to office development along non-arterial street corridors to ensure compatibility with surrounding residential areas.

Responsible Agency: Planning Department, Planning Commission, City Council

Schedule: 2004-05

Policy 11

Community and neighborhood activity centers shall be established at appropriate locations to create recreational opportunities, encourage social interaction and provide a sense of public space and center for neighborhood activity.

Program 11.A

The City shall continue to actively pursue joint use agreement with the Desert Sands and Palm Springs Unified School Districts to promote the appropriate public use of school open space, and athletic and other facilities as integral parts of adjoining and nearby neighborhoods.

Responsible Agency: Parks and Recreation Department, Planning Department, School Districts, Planning Commission, City Council

Schedule: Continuous

Program 11.B

The City shall review development proposals for opportunities to integrate parks, plazas, squares and other open space areas that allow and facilitate public use and social interaction.

Responsible Agency: Planning Department, Planning Commission, City Council

Schedule: Continuous

Policy 12

The City shall maintain and enforce a Sign Ordinance that minimizes the size, scale and number of signs needed to provide functional identification and exposure to convey messages, while minimizing impacts on traffic safety, streetscape appearance and scenic viewsheds.

Program 12.A

The City shall review and, as necessary, revise the signage regulations set forth in the Zoning Ordinance addressing all aspects of sign review, and shall establish finite periods by which existing non-conforming signage shall be retired.

Responsible Agency: Planning Department, Planning Commission, City Council

Schedule: Continuous

Policy 13

Preserve the value of the community's night sky and avoid unnecessary light and glare from signage, building and landscape illumination, or other sources of outdoor lighting.

Program 13.A

The City shall revise the Zoning Ordinance and other appropriate sections of the municipal code to limit lighting levels, establish acceptable types of lighting and fixtures, and the location of lighting in relation to adjoining and nearby properties, the public right-of-way and the night sky. Standards shall establish maximum height and number of fixtures, and intensity of lighting needed to provide sufficient parking lot and building security and identification for public safety, enhance landscaping, and other site aesthetics.

Responsible Agency: Planning Department, Planning Commission, City Council

Schedule: 2003-04

Policy 14

Incorporate the City's identification symbol into street signage, planters, benches, public buildings, City vehicles, streetscape furnishings, and other appropriate applications.

Policy 15

Support a high level of Code Enforcement to encourage neighborhood beautification and to maintain property values and quality of life.

Policy 16

Overhead utility lines shall be undergrounded to the greatest extent practical through the establishment of an undergrounding program and guidelines.

Policy 17

Public utility facilities, including electric power substations, domestic water and irrigation wells, switching and control facilities shall be screened, landscaped and/or otherwise obscured and integrated into the surrounding environment to limit their adverse aesthetic impact.

Program 17.A

The City shall confer and coordinate with the various utility providers with facilities in the City and shall jointly develop screening and other strategies to reduce the adverse effects of these facilities on the appearance of the community.

Responsible Agency: Planning Department, Planning Commission, City Council

Schedule: Continuous

Policy 18

Continue to promote and facilitate the placement of public art to create a unique setting that enhances the cultural and aesthetic character throughout the City.

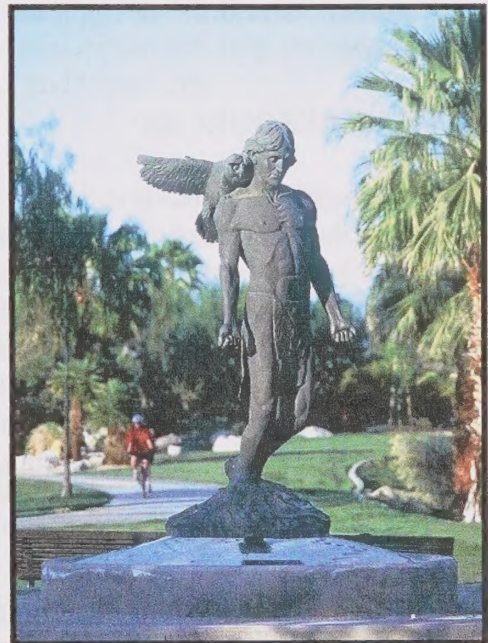
ARTS AND CULTURE ELEMENT

PURPOSE

The Arts and Culture Element presents policies and programs that make best use of the role the City can play in encouraging and supporting the cultural development of the community. The City's aesthetic values are reflected throughout the community's planning efforts and provide the basis for cultural identification. The City can play an important role in helping to foster and enhance the activities of public and private nonprofit enterprises supporting the arts and by giving its direct support to City-sponsored activities and facilities. The purpose and intent of this Element is to promote a community character which provides equal and abundant opportunity for exposure to culture and the fine arts in all forms, with the hope that, directly or indirectly, this exposure shall humanize, beautify, and refine the lives of the Palm Desert residents and visitors.

BACKGROUND

Directly related to arts and culture within the General Plan are various other Elements, including the Archeological and Historical Resources Element, which communicates the past cultural traditions of the Native Americans and settlers of the area. The Open Space and Conservation Element addresses the great value the community places upon its open and wild lands and natural environment, including the Santa Rosa Mountains and other natural resources in and around Palm Desert. The Parks and Recreation Element provides information on facilities, installation sites, and coordinated activities for sports, recreation, and cultural events. Vital institutions and facilities that are essential tools for the conveyance of art and cultural traditions to young residents are addressed through the Schools and Library Element. The Biological Resources Element recognizes the community's involvement in and dedication to the preservation of wildlife and habitat, and is the reason many have chosen to live in the city.



“Messenger of the Puul”

The cultural and artistic tradition of the City of Palm Desert and the Coachella Valley have a long and interesting history of human culture to draw upon, extending from Cahuilla Indian rock art, pottery and basketry, to the contemporary city with state-of-the-art technologies and communication systems. The City's residents today comprise a wide range of artistic

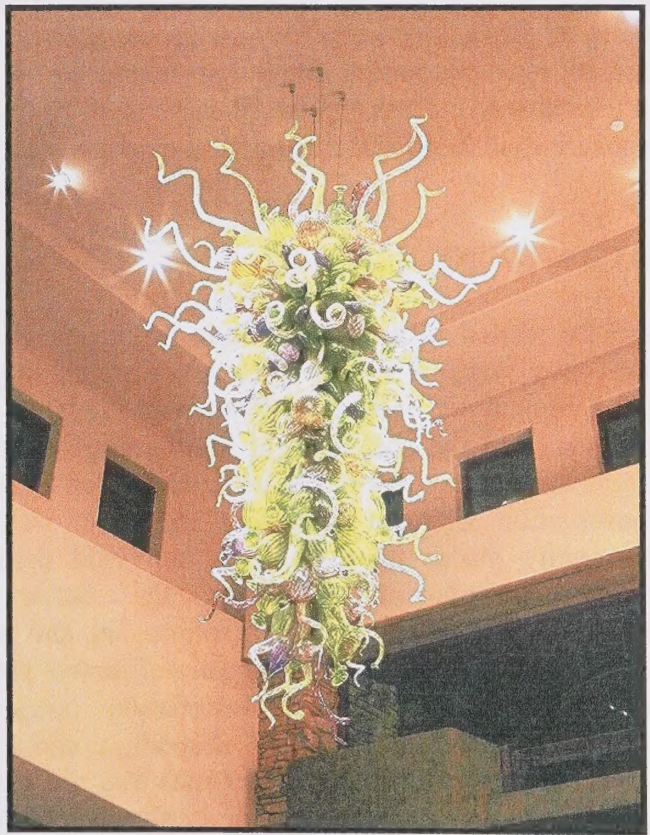
appreciation and cultural diversity, with common roots and shared values. Our awareness of these cultural traditions, both new and old, and of the natural environment, is essential to forming the cultural sensitivity of our community.

Palm Desert is a new and contemporary city. Because a firm commitment exists to preserve the area's unique character and to balance development with artistic enhancement, Palm Desert has become a mecca for the flourishing recreation, resort, housing and retail industries. Art has played an important role in the creation of character and image in the City of Palm Desert. It crosses all social, cultural, educational and socio-economic lines, and evokes both intellectual and aesthetic responses in people. The City's Art In Public Places Program provides for the integration of artworks throughout the City in public and private development to enrich the built and social environment.

In its first twenty-five years, Palm Desert took the lead nationally in ensuring that its growth respects and compliments the natural, built, and social landscape. Public art is one method of ensuring that the visual experience of the City is enriching and engaging. Increasingly, cities and major developments across North America, Asia, and Europe are discovering the power of art in creating opportunities for cultural tourism, economic development, and image building.

CULTURAL RESOURCES

The arts and culture area is one aspect of community planning that is appropriately viewed on a Valley-wide basis. Residents of Palm Desert are able to enjoy cultural resources that have been supported by all Valley residents, including the Desert Museum, the Children's Discovery Museum, the Pickford Theatre and Museum, the Coachella Valley Museum and Cultural Center, and the Desert IMAX Theater.



“Chihuly”

McCallum Theatre, McCallum Theatre Institute and Bob Hope Cultural Center

The McCallum Theatre at the Bob Hope Cultural Center is a 1,127-seat performance facility located on the campus of the College of the Desert. It is acknowledged as one of the finest performing arts centers in the nation. The theatre's dramatic, desert-inspired interiors, designed by Steve Chase, provide a comfortable environment and superb acoustics reminiscent of a European opera house.

A wide variety of cultural events are staged at this facility and range from accomplished local theatre and concert performances to similar activities by world-renowned performers and orchestras. It is also an outstanding facility for network television productions, corporate and industrial presentations.

The McCallum Theatre Institute seeks to enhance the role of the arts in the community by inspiring greater awareness of its educational, cognitive, emotional and spiritual power. By encouraging an active and experiential study of the arts, the Institute advances the belief that all human beings are inherently creative. The programs developed by the Institute are designed to build on that creativity by equipping individuals with the skills necessary for an enduring appreciation of the arts and their essential contribution to enlightened citizenship.

The McCallum's educational outreach sponsors its Field Trip Program, which invites school groups into the theatre during a school day to view a full-scale production at no charge. The McCallum is expanding this program from four to possibly as many as twelve such productions in the coming year, with further expansion projected for future seasons.

The McCallum Theatre's "Imagination Station" is an annual summer program for children ages 7-12 in which children receive training in singing, dancing and acting. At the end of the two-week program, camp participants perform a full-scale musical production. The camp is fee-based with some scholarships available, and no auditions are required.

The McCallum also sponsors the Aesthetic Education Program. Modeled after a 25-year old program at the Lincoln Center for the Performing Arts, the McCallum offering provides training and professional development for teachers in theatre, dance, and visual arts

On-Stage Productions

On-Stage Productions is a no-audition, fee based theatre-training workshop for all persons aged four years and up. This organization provides registrants a 15-week training course, which covers a range of theatre disciplines as well as schooling students in auditioning techniques. The culmination of the 15-week course is a full-scale, family musical production. The company performs two shows a year at the McCallum Theatre and participates in the McCallum's Field Trip program.

The California Desert Chorale

The California Desert Chorale performs the annual Christmas with the Chorale, and Evening at the Pops concerts. Other concerts offer such fare as Beethoven's Choral Fantasy, and works by Hayden and Schubert. The Chorale currently performs at St. Francis of Assisi Catholic Church and Community Presbyterian Church.

Indian Wells Desert Symphony

The Indian Wells Desert Symphony presents to the community an annual Five Star Series at the Southwest Community Church in Palm Desert. Monthly concerts run from January through April and each features special guests. In addition is the Symphony's special October Halloween Fest.

Friends of Philharmonic

The Friends of Philharmonic provide the community with classical music with outstanding orchestras from around the world, such as the Dresden Staatskapelle, The Los Angeles Philharmonic, The San Diego Symphony, The Bolshoi Orchestra, and The National Orchestra of Spain. Their presentations are usually held at the McCallum Theatre.

The Palm Springs Opera Guild

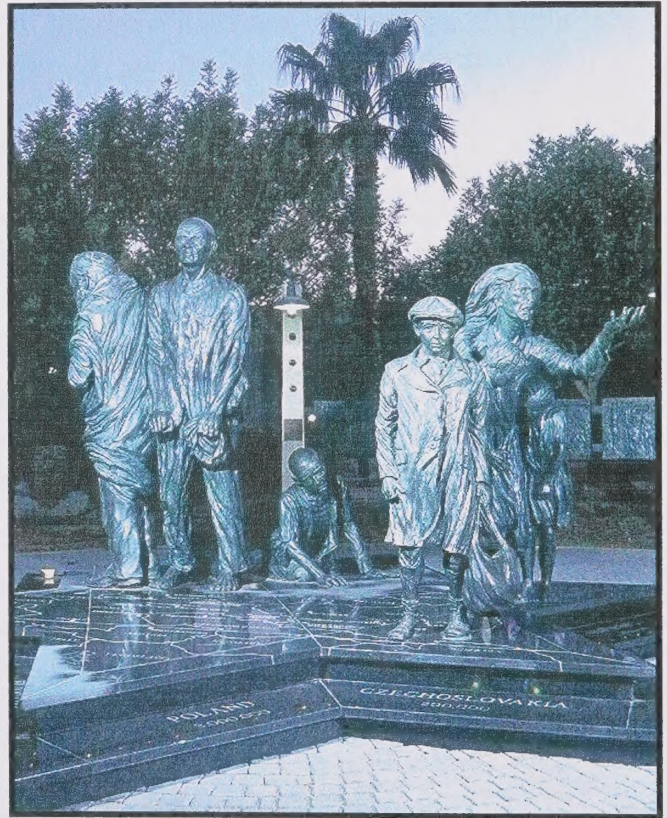
The Palm Springs Opera Guild sponsors many varied events throughout the valley. The Guild hosts the annual Opera in the Park and Vocal Scholarship Competition, and several operas with full orchestra and chorus during the season.

The Living Desert Reserve

The Living Desert Reserve is a non-profit education and conservation center located in Palm Desert. It is a 1,200-acre zoological park representing over 150 species including coyotes, bighorn sheep, oryx, zebras, desert tortoises, lizards, cheetahs and meerkats. The botanical gardens represent 10 different desert ecosystems. The center also features wilderness hiking trails, Native American exhibits and special events and programs throughout the year.

Desert Holocaust Memorial

This is an outdoor memorial to holocaust victims with seven larger-than-life bronze figures with a circular row of trees representing life outside the concentration camps. It is located within the Civic Center Park and features seven oversize bronze figures surrounded by cobblestone and lighting influenced by that at the Auschwitz Extermination Camp.



The Desert Holocaust Memorial

Palm Desert Historical Society Museum

Housed in Palm Desert's first fire station, built in 1949, the museum presently features a 1973 fully restored fire engine, pictorial displays and historical video.

Palm Desert Library

The Palm Desert Public Library, one of the first multi-agency libraries in the United States, is the result of cooperative support of City and County governmental agencies, educational institutions, friends and civic groups. It is one of twenty-four libraries within the Riverside County Library System (RCLS). The City augments the County library budget annually to purchase materials and equipment. The library shares occupancy with the College of the Desert Library, providing the public with the opportunity to utilize both a public and an academic library collection. The

College of the Desert Library also houses a rotating student/staff show on the Inez Bragdon Garrow Gallery Wall. The City of Palm Desert Library is the setting for various sculptures and artwork that either have been donated to the Library or are part of the City's collection.

College of the Desert

The College of the Desert, a State Community College, actively participates in the fine arts activities of the City. Performing arts include plays, concerts, and operas staged at their Pollock Theatre and Hilb Center, with two yearly performances at the McCallum Theatre. Their visual art contributions to public art in Palm Desert include shows at the college's Hilb Center, sculptures on the campus grounds, and art shows on the Inez Bragdon Garrow Gallery Wall in the multi-agency library. The College also provides arts education and performance classes open to all members of the community, and these include several musical performance groups, both vocal and instrumental, in addition to theatre productions and visual arts courses.

California State University San Bernardino, Coachella Valley Campus

CSUSB's campus, currently located adjacent to College of the Desert, is in the process of expanding to its new location near the intersection of Cook Street and Frank Sinatra Drive in Palm Desert. The new campus' 300-seat theatre will initially "import" productions from the main San Bernardino campus for the Coachella Valley audience, with the potential for Coachella Valley campus-based productions in coming years.

The Desert Museum

The Desert Museum is a fine arts and natural history museum located in Palm Springs. In addition to indoor exhibition space and instruction facilities, the Desert Museum also has an outstanding sculpture garden. This facility also houses the Annenberg Theatre, which is the site of a wide array of cultural programs ranging from classical and popular music to education programs. The natural history programs include dioramas of desert and mountain habitats and wildlife, rotating live animal exhibits, and a wide range of field trips and in-house education programs on the natural world. The museum is also an important repository for cultural artifacts of the Agua Caliente Indians.

Agua Caliente Cultural Museum

The Agua Caliente Tribe is currently planning the development of a tribal museum in Palm Springs. While detailed designs have not yet been developed, plans currently call for a variety of temporary and permanent exhibit areas, collections, storage and archive, outdoor courtyard and lecture area, multipurpose room, children's room, new artist exhibit area, and an amphitheater for major outdoor events. The museum will be an important venue for the appreciation of the rich Cahuilla cultural heritage. The Museum is also the designated representative of the Agua Caliente Band of Cahuilla Indians for repatriation.

Anita Richmond Cove Communities Children's Discovery Museum of the Desert

The Children's Discovery Museum, opened in 1998 and located in Rancho Mirage, involves children in an interactive discovery process. The Museum's exhibits and programs primarily focus on pre-school and early elementary aged children, although it does serve children of all ages. With a mission statement of preparing "children to live and succeed in the world of the future, a world defined by change," programs and exhibits encourage parental involvement in

their children's learning process, and invite community involvement. The Museum actively collaborates with other organizations. It provides ongoing exhibits, and weekly, monthly, and seasonally special events with emphases including science, social interaction, dance, crafts and cooking.

Coachella Valley Museum and Cultural Center

The Coachella Valley Museum and Cultural Center is located in Indio in an adobe structure built by a Dr. Smiley in 1925, who established a medical practice from his home. In 1982 the City of Indio purchased the building and leased it to the Coachella Valley Historical Society. The Society's conversion of the building to a museum has provided a home for Historical Society members' artifacts collected from pioneer families and commemorating those individuals' treks across the United States. The museum also houses a display on agriculture and the date culture, as well as the story of water in the desert. Currently (2001) the museum is featuring a non-permanent exhibit about the first schoolhouse built in Indio. The 1909 school structure is being renovated on the museum grounds. The museum's exhibits also include an extensive collection of farm equipment and a blacksmith's shop. School tours are welcomed on a weekly basis.

Augmenting its historical focus, the Museum hosts a summer art program for children ages 8-13. Students may focus on either sketching and drawing, or on creating with clay. Each track lasts four weeks and is taught by professional artists and retired art teachers. The Museum charges a minimal fee per student.

The Museum exhibits the work of local and regional artists, rotating exhibits once each month from October through April. Recent exhibits have focused on the works of members of the Coachella Valley Watercolor society, as well as showcasing the art of second and third graders from the Mecca School.

Coachella Valley Arts Alliance

This organization was formed in 1999 as a cooperative among local and regional arts professionals. The Alliance's mission is "to support artists and arts organizations and foster new arts activities to ensure cultural vitality in the Coachella Valley." Membership is comprised of local arts professionals as well as the majority of Coachella Valley cities, including the City of Palm Desert. Members support the Alliance with small annual dues. The organization has attained 501C3 status. One of its current goals is to thematically coordinate the I-10 art corridor in conjunction with the Coachella Valley Association of Governments.

La Quinta Arts Festival

The La Quinta Arts Foundation is a nonprofit charitable organization dedicated to the promotion and cultivation of the Arts through education. Located in the neighboring city of La Quinta, their annual Spring Festival brings to the Coachella Valley the works of internationally recognized fine artists as well as emerging local artists. The Foundation supports local college-bound students with a scholarship program, and provides innovative outreach programs for school children.

Richard & Annette Bloch Cancer Survivor Park

Located in neighboring Rancho Mirage, this park is a celebration of life and hope, featuring eight life-size figures passing through a maze depicting cancer treatments, and several inspirational stages on a walk ending with a water feature in meditative surroundings.

Palm Springs Air Museum

The Palm Springs Air Museum is dedicated to the preservation, presentation and interpretation of the Air Power of World War Two, its relevance and significance upon the course of history, and its impact on contemporary life. The museum has one of the world's largest collections of flying World War II warplanes. Exhibits include combat photography, original artworks, artifacts, uniforms, and video documentaries. Regularly featured are flight demonstrations of the museum's collection and visiting aircraft, both historic and contemporary.

IMPACT OF THE ARTS ON ECONOMY

The Arts represent an industry that generates jobs and supports the local economy. The presence of art programs and facilities is often acknowledged by Chambers of Commerce as a community asset and an attractive component when encouraging businesses to relocate or expand within the community. The Arts are a catalyst for tourism, and encourage growth and creativity in communication, entertainment and technology.

Cultural Tourism

Cultural tourists are defined as visitors who explore a community's arts, culture, heritage, environment, and history. According to the National Assembly of State Arts Agencies (NASAA), two significant travel trends are expected to dominate the tourism market in the years 2000 - 2010. Travel is being tailored to the interests of the individual consumer through a one-to-one marketing strategy. A growing number of visitors are becoming special interest travelers who rank the arts, heritage and/or other cultural activities as one of the top five reasons for traveling. The combination of these two trends is being fueled by technology, through the proliferation of online services and tools, making it easier for the traveler to choose destinations and customize their itineraries based on their interests. Among the emerging trends that contribute to cultural tourism are an increased interest in the sustainability of communities and the natural environment, a search for meaning that many visitors find in nature, heritage, culture, and the impact of the Internet.



BEGINNINGS AND OPPORTUNITIES FOR CULTURAL AND ARTISTIC EXPRESSIONS AND APPRECIATION

Art In Public Places

The cultural cohesion of the community is greatly enhanced and powerfully expressed through the placement of art in public places. Public art can integrate native landscaping along major roadways to reflect the surrounding Santa Rosas and desert

washes, keeping consistency with the principle of a low density resort residential community that values its mountains and wild places. It can include the attentive design and placement of public buildings, as well as placement of manmade monumental sculpture on public lands, or within the rights-of-way of major roadways.

Palm Desert was the first city in Riverside County to create a public art program. In 1986, the City Council adopted an ordinance requiring developers to place art or pay a fee to the Art In Public Places Fund for each new structure they build. These funds are used to purchase art for the community. The goals of the Public Art Program are to create an artistic harmony between the building, landscaping, and open spaces as well as to serve the people of the community and visitors by bringing art into daily life. The Art In Public Places Commission (AIP) serves as a technical advisory committee to Council, and makes the initial selection and recommendation of artist and artworks for public and private projects.

The Art in Public Places Program for the City of Palm Desert is receptive to the broadest definitions of art, and encourages imaginative interpretation of media, including sculpture, murals, earthworks, and standardized fixtures.

Art In Public Places Committee

The City's Art In Public Places Committee (AIPP) was established in 1986. It has been successfully working to integrate visual art into the physical and social infrastructure of the City, concentrating its efforts on the visual arts exclusively. Its purpose is to guide the Art in Public Places Program and to serve as visual arts advisors to the City Council. Membership of the AIPP is made up of nine arts professionals who are residents of Palm Desert. Art professionals for these purposes are defined as curators, visual artists, art critics, art historians, art collectors, architects, landscape architects, art educators and other persons with visual arts backgrounds respected in their field and willing to engage effectively in a panel process. Commission appointments are made by City Council.



"Jacques"

El Paseo Exhibition

The El Paseo Exhibition is an annually rotating installation of the City's permanent, temporary, and newly acquired artwork on the El Paseo median strip between Highway 74 and Portola. It serves as an ongoing 'museum without walls' for the city's residents, businesses and visitors.

Civic Center Park

Centrally located in Palm Desert, Civic Center Park is the site for most community events, many of which are held in the park's Hahn Amphitheater. Currently (2001), plans for a new amphitheater are in the design process. Art-related events include summer concerts, movies in the park, SpringFest,

and a Fourth of July celebration. Much of the City's sculpture collection is located in this community park, and it is the setting for the City's Art In Education Program.

Other examples of artwork placement through the City's Art In Public Places Program can be found at the Palm Desert Library, College of the Desert Library and campus, the Living Desert Reserve, City Hall, the McCallum Theatre, and various parks, schools, private developments, businesses, municipal street locations, bus shelters and entry signage throughout the city.

CULTURAL AFFAIRS PROJECTS AND EVENTS

Art In Education Program

A community environment that supports arts education encourages high achievement by offering models of excellence in performance arts and visual arts. It creates an awareness of quality as a key value of the community. The arts reach students who are not otherwise being reached and in ways they are not otherwise being reached. They connect students to themselves and each other. The study of art encourages students to analyze, interpret, and evaluate artworks and to study the work's history and cultural roots.

Studies conducted by the National Endowment for the Arts (OMG, Inc., Philadelphia), along with other respected sources, suggest that students who attend arts-focused schools tend to achieve higher test scores than similar students in other schools in their area. The Art In Education Program, an ongoing project of the City of Palm Desert and its Civic Arts committee, provides and establishes a cultural atmosphere and identity in the community through its schools.

Art In Education is an interactive and participatory program that provides teachers the opportunity to schedule class tours of the public art in City parks. The program encourages students to learn about art while using their imagination in a variety of ways to define how the art makes them feel.

The Palm Desert Civic Center Park Sculpture Teachers' Guide has been developed and is used by the schools to provide experiences that introduce students to the quality of life found in the City of Palm Desert and to engage the students' interest in art. It focuses on the exploration of the five elements of art (line, shape, color, form, and texture), the difference between abstract and realistic sculpture, and the difference between what is three dimensional and what is two dimensional. The goal of the program is to teach students to really see the sculpture for its sum and its parts.

Student Art & Essay Contest

Each year the Civic Arts Committee selects a different theme for the students in Palm Desert to address. The students then submit either an individual piece of artwork or an essay that addresses the theme. Classes are also invited to enter a mural addressing the theme. The contest is judged and cash prizes are given to the winners based on contributions collected from local businesses. There is a City Council-attended awards ceremony, and the show is displayed for several months in the north wing art gallery at Palm Desert City Hall.

Waste To Wonders

The City of Palm Desert is a sponsor of this Valley-wide program that invites artists to show various types of artwork made entirely out of recycled materials. The first show was held in conjunction with Earth Day, April 2002.



Musical Ambassador Program

The City provides a stipend for musical groups from Palm Desert schools to perform at a variety of community gatherings and events. Local schools perform at a variety of venues, including holiday festivities, concert series, and other special events. This program provides students the opportunity to perform while showcasing the City's talent.

SpringFest

This is the City's annual Day in the Park to thank residents for their support of the City's art programs. The day includes arts & crafts for kids, games, beer garden, live stage entertainment, public safety fair, health fair, senior fair, petting zoo, historical society displays, literacy fair, art show, local media outlets displays and activities, etc. The event typically draws 10,000 people from throughout the community.

Holiday In The Park

This annual event provides the community an opportunity to enjoy Holiday activities, including photographs with a golf cart-riding Santa Claus, refreshments, a decorated wagon parade, and songs of the season.

Summer of Fun

This event was developed to provide free summer evening activities for Palm Desert residents who remain year-round. It is held every Thursday night, from Memorial Day to Labor Day. Either a live concert or a movie is held in the City's outdoor amphitheatre.

LAND USE PLANNING AS A STRATEGY FOR CULTURAL RESOURCE PRESERVATION

The preservation of wildlife and the conservation and assurance of access to open spaces and wildlands are essential parts of the cultural inheritance of Palm Desert and the Coachella Valley. The inspiration gained from the closeness with which residents live with wildlife has enhanced appreciation for these valuable resources.

The City's low density resort residential lifestyle and its close association with wildlife and the environment are consistently acknowledged as integral parts of the community's traditions and culture. The desire to preserve open spaces to assure the long term enjoyment of wildlands and wildlife, and to preserve and protect the cultural heritage of local Native Americans are among the essential values esteemed by the community in the development of the General Plan Land Use maps. The Land Use Plan and various other elements of the General Plan take these and further special concerns into account and will perform an active role in preserving these community resources for future generations.

FUTURE DIRECTIONS

Providing a community with the resources for cultural enrichment gives its citizens exciting opportunities to explore and expand their culture, identity and commerce. It increases community pride and improves quality of life by encouraging reflection, building awareness of new ways of seeing the world, and incorporating beauty into the functionality of everyday life. Cultural activities and centers can encourage community spirit and a heightened appreciation for diversity, thereby strengthening community cohesiveness. The relationship of arts and culture to the physical environment is not always tangible, but like economic development, has a decided influence on the quality of life offered in Palm Desert.

The City has a history of supporting and providing numerous varied arts and cultural opportunities to the community. Its future endeavors should focus on strengthening its development as a regionally recognized cultural center, an identity which carries both artistic and economic development potential. Efforts should relate to building positive community involvement with and support of the arts as well as encouraging arts-related tourism and commerce.

The goals and policies of the Arts and Culture Element are intended to help sustain and enhance a civic environment where artistic expression and cultural diversity can flourish.

GOALS, POLICIES, AND PROGRAMS

Goal 1

Support, promote an enriching artistic, cultural and arts-education environment in Palm Desert.

Goal 2

A strengthened awareness, understanding and communication among the cultures and identified groups within the community through the use of the arts.

Goal 3

An established and strengthened identity for the City of Palm Desert as a regionally and nationally recognizable destination market for the arts.

Policy 1

Encourage and promote regional, citywide and neighborhood arts and cultural events, activities and educational endeavors.

Program 1.A

The City shall continue to sponsor and encourage cultural events and programs such as the Summer of Fun, Student Art & Essay Contest, the Art in Education Program, Waste to Wonders, Springfest, Musical Ambassador program, and others which involve a variety of citizen groups and which promote artistic and cultural awareness and build community identity.

Responsible Agency: Community Services Department, AIPP Commission, Civic Arts Committee, Planning Commission, Community Development Department, Parks and Recreation Department, City Council

Schedule: Immediate, Continuous

Program 1.B

The City shall continue to actively identify, encourage and sponsor new cultural events and programs which promote artistic and cultural awareness and build community identity.

Responsible Agency: Community Services Department, AIPP Commission, Civic Arts Committee, Planning Commission, Community Development Department, Parks and Recreation Department, City Council

Schedule: Immediate, Continuous

Program 1.C

The City shall encourage, and to the extent practical, facilitate the continuation of non-City sponsored events and programs such as the Golf Cart Parade, American Cancer Society Relay for Life, the Choreography Festival, etc., which promote artistic and cultural awareness and build community identity.

Responsible Agency: Civic Arts Committee, Planning Commission, Community Development Department, Parks and Recreation Department, City Council, McCallum Institute

Schedule: Immediate, Continuous

Program 1.D

The City shall actively seek to encourage the development of new non-City sponsored cultural events and programs which promote artistic and cultural awareness and build community identity.

Responsible Agency: Civic Arts Committee, Planning Commission; Community Development Department, Parks and Recreation Department, City Council, Sister City Committee

Schedule: Immediate, Continuous

Policy 2

Encourage corporate, business and foundation support of artistic and cultural activities through mutual programs and public-private partnerships.

Program 2.A

Through its Civic Arts Committee the City shall begin identifying potential corporate partners and exploring the development of such public-private partnerships to provide support for the development of artistic and cultural activities.

Responsible Agency: Community Services Department, AIPP Commission, Civic Arts Committee, Planning Commission, Economic Development Department, City Council, private sector partners, Sister City Committee

Schedule: 2003-04

Policy 3

Encourage active citizen involvement in the planning, development and provision of arts programs, facilities, and services.

Program 3.A

The City shall develop a comprehensive plan to utilize and develop various avenues of communication, including the development of a City arts and culture-specific Web site, liaisons with corporate and business partnerships, and existing events and facilities. This effort will focus on building community awareness, recruiting involvement in existing arts and cultural events and programs, and on building support and involvement for the development of new events and programs.

Responsible Agency: Community Services Department, AIPP Commission, Civic Arts Committee, Planning Commission, Publicity and Marketing Manager, Parks and Recreation Department, City Council, private sector partners

Schedule: 2003-04

Policy 4

Encourage and actively pursue public events that allow people to gather for the purposes of entertainment, education, and camaraderie, such as art and music festivals, farmers markets, art movie houses, lyceums, and music and other performance events.

Policy 5

Increase awareness of the public benefits of the arts by recognizing and promoting the arts, artists, performing arts, and cultural organizations as valuable resources of our community for economic vitality and tourism.

Program 5.A

The City shall explore marketing endeavors such as marketing seminars that demonstrate ways the arts community can market effectively to tourists, develop tour packages on offerings from the arts and cultural communities, and host familiarization tours for both meeting and tour planners.

Responsible Agencies: Community Services Department, AIPP Commission, Civic Arts Committee, Economic Development Department, Planning Commission, Community Development Department, Parks and Recreation Department, City Council, International Association of Convention and Visitors Bureau

Schedule: Immediate

Policy 6

Establish the City of Palm Desert as an arts and cultural community through destination marketing techniques and through the use of locally recognizable arts landmarks and information centers.

Program 6.A

Develop a comprehensive Cultural Tourism Development plan and program that will maximize beneficial intersections between the arts and economic development, and position the arts as a good partner in areas such as economic development, tourism, education, workforce development, and transportation.

Responsible Agencies: Community Services Department, AIPP Commission, Civic Arts Committee, Economic Development Department, Planning Commission, Community Development Department, Parks and Recreation Department, City Council, National Endowment for the Arts, California Arts Council

Schedule: Immediate

Program 6.B

Continue development of a Web site highlighting the City's arts and culture identity and featuring sections promoting the City as a regional and national arts and cultural center and destination; the site shall incorporate links with Web sites hosted by other community arts and cultural resources and state and regional arts agencies.

Responsible Agencies: Community Services Department, AIPP Commission, Civic Arts Committee, Publicity and Marketing Manager, Economic Development Department, City Council, National Endowment for the Arts, California Arts Council, various community arts and cultural centers and event-sponsoring agencies, City Business Associations

Schedule: Immediate

Program 6.C

Establish image gateways and/or arts corridors on Highway 111, at each end of El Paseo, and at other significant intersections or along major roadways within the City to increase resident and visitor awareness and recognition of Palm Desert as an arts and cultural community.

Responsible Agencies: Community Services Department, AIPP Commission, Civic Arts Committee, Planning Commission, City Council, CalTrans.

Schedule: 2003-04

Program 6.D

Facilitate the creation of an arts-specific information kiosk within the City's Visitor Information Center where information on local arts and cultural events will be available, and another such kiosk or "art center" at an accessible location along El Paseo.

Responsible Agencies: Community Services Department, AIPP Commission, Civic Arts Committee, Economic Development Department, Planning Commission, Community Development Department, Parks and Recreation Department, City Council

Schedule: Immediate

ECONOMIC & FISCAL ELEMENT

PURPOSE

The purpose of the Economic and Fiscal Element is to describe the economic foundations, characteristics and trends of the City of Palm Desert, and to evaluate the City's position in the regional economy. The element also explores the relationship between economic policies, urban development, and land use patterns, and their impact on the financial well-being of the City. The element describes the three major components that comprise the City's economic base; retail commercial, resorts and tourism, and educational institutions. Fiscal issues, the balance between revenues and services that are important to the City's ability to maintain and enhance the quality of the physical, social, cultural, and economic environment enjoyed by Palm Desert residents, businesses, and visitors, are also discussed. Past conditions, which have contributed to the City's strong financial position, must be continually reevaluated for their relevance in a growing and changing economy. This element identifies future economic development opportunities and constraints, maps future directions and sets forth goals, policies and programs intended to further expand and strengthen the City's growing economy.

BACKGROUND

The Economic and Fiscal Element is integral to all elements of the General Plan. The provision of a high quality of life, as measured by the level of public services, utilities, cultural amenities, employment and housing opportunities, and the protection of City residents from flooding, seismic, and other hazards, are directly related to the local economy. This element has an especially strong and direct relationship with the Land Use Element. Government Code Section 65030.2 provides the statutory reference for this relationship and states that "land use decisions shall be made with full knowledge of their economic and fiscal implications and their relationship to long-term environmental impacts, as well as long-term costs and benefits." The element also examines issues set forth in Government Code Section 65863.6 and 66412.3, which require cities and counties to balance the available fiscal and environmental resources against local housing and public services needs.

ECONOMIC FOUNDATION OF PALM DESERT

The City has grown from a sleepy stop along Highway 111 between Palm Springs and Indio in the 1950s to the commercial retail powerhouse of the Coachella Valley, with the Westfield Shoppingtown, high-end retailing on El Paseo, power centers like Desert Crossings and the wide variety of other commercial services. Also important has been the function of the Cook Street Business Park, providing light industrial, service commercial, and now supporting a wide variety of professional and design services. Palm Desert has also evolved as an important world-class vacation resort community, with a full range of hotel and timeshare developments, as well as residential resort developments. The City's internationally recognized golf courses, including the City's Desert Willow courses, have also enhanced the City's position as a vacation and resort destination.

Since hosting the campus of the College of the Desert (COD) in the early 1950s, the City has grown to become the focus of higher education, with the steady growth of COD, the development of branch campus facilities for California State University-San Bernardino, and now the development of a new California State University campus on Cook Street. Also being developed at this site is a new branch of the University of California-Riverside Gary Anderson Graduate School of Business, which will focus on entrepreneurship. These campuses are acting as important catalyses for other economic development ventures in such areas as alternative fuels and transportation, energy research and development and water resource management.

Securing the City's economic future will require the thoughtful balancing of existing and new development opportunities with the components of the City's economy that have proven effective in promoting and sustaining an enviable quality of life for the City's residents and visitors. Integral to this goal is the preservation of the physical environment, including the outstanding natural and aesthetic resources that have attracted visitors and residents from all over the world. Also essential will be the maintenance of development patterns that support and reinforce the City's position as the commercial retail center of the valley.

THREE LEGS OF THE CITY ECONOMY

As briefly described above, the City has firmly established two legs for the local economy, these being retail commercial and tourist and resort development. The third leg is the emergence of educational institutions, including the College of the Desert, the California State University campus and the University of California Heckman School of Entrepreneurship. The current and future roles that each of these three economic components plays are described below.

Retail Commercial

Since the early 1980s, the focus of retail commercial activity in the Coachella Valley has shifted from the Cities of Indio and Palm Springs to Palm Desert, which is the geographic and demographic center of the valley. While commercial development was already well underway on El Paseo and at the Palms to Pines Center, it was the development of the Palm Desert Town Center by Ernest Hahn in 1982 that gave impetus to the emergence of City as the commercial center of the Coachella Valley. The early success of the mall induced a wide range of additional shopping center development centered around the mall and including the Marshall's Center, Waring Plaza and Desert Crossings. The success of this concentrated shopping district also induced redevelopment and expansion along other portions of Highway 111 and the upgrading of El Paseo to the premier high-end shopping promenade of the desert.

The El Paseo shopping promenade extends from Monterey Avenue on the west to its intersection with Highway 111 on the east. El Paseo is an assemblage of elegant specialty retail storefronts, smaller integrated centers, and also includes the expansive Gardens at El Paseo shopping center and associated parking structure. Located along a well landscaped and aesthetically enhanced public street, El Paseo is also supported by City parking located between this corridor and Highway 111. Major facade renovations and new in-fill development has added to the quality and variety of this shopping experience, which is unique to the desert.

The Westfield Shoppingtown has undergone major renovations in 2002-03, including a new parking structure made possible through major participation by the City RDA , and helping to rejuvenate this large and diverse mall experience. "Big-box" and commercial power center development, including Desert Crossings, Waring Plaza and the Costco Center have also broadened the market that the City serves. The City also is home to a wide variety of small chain and independent retailers, including "mom and pop" stores that have been successful despite the competition from larger retailers. The City RDA has also provided a variety of support services, including facade renovation programs assistance with signage that have helped these important businesses to remain viable. Finally, the City is supported by a variety of neighborhood shopping centers which are dispersed throughout the community. These typically consist of a supermarket, drugstore and a variety of convenience and service commercial outlets.

The 1990s saw the emergence of major commercial development along the US Interstate-10 corridor with the development of the Costco Center in Palm Desert and adjacent Rancho Mirage, and commercial development Palm Desert. The new focus along I-10 is at the interchange of Monterey Avenue and Interstate-10, where "big-box" and other community-scale shopping development is planned. The Cook Street/I-10 interchange area is also seeing retail development, including service stations and other highway-serving commercial development, and substantial opportunities are expected on the north side of I-10. The University Park planning area is also expected to provide excellent development opportunities for a wide range of commercial services. Taking advantage of the gateway function and drive-by market along Interstate-10 is expected to further deepen and secure the City's position as the dominant retail commercial force in the Coachella Valley.

Resort Development and Tourism

The beauty and comfort of the region's natural environment is the single most important asset that has made the City and the Coachella Valley a world renowned resort and tourist destination. Current and planned development has been on the scale of "urban villages" that have and will continue to preserve the natural features of the deserts and mountains that differentiate Palm Desert from the urban areas many new residents and visitors are trying to escape. Regional land use, wildlife, open space and transportation plans coordinated through the Coachella Valley of Governments (CVAG) are expected to protect these essential assets for the long-term.

The evolution of tourism and resort development in Palm Desert has been similar to that of the retail commercial sector. Historically, the City of Palm Springs has been the primary market for hotels and motels, and Palm Springs continues to lead Coachella Valley cities in the number of rooms and the collection of transient occupancy tax (TOT). However, Palm Desert has been well known as a resort community since the development of the Shadow Mountain Resort in 1956, and has emerged as the second largest market for hotel and motel. The hospitality industry continues to be attracted to the City. For instance, Marriott Corporation has made major investments in the City over the past decade and has extended its ventures in a major way into timeshare developments. Opportunities remain in the City and the planning area for additional hotel and timeshare development.

Resort development has also become an important economic component of the City, meeting the growing regional demand for second/vacation homes and retirement housing within a self-contained resort environment. The City's position in this market dates back more than three decades with the development of Marrakech on Portola Avenue, south of Highway 111.

Resort residential development has moved to other areas of the City and now include such major examples as The Lakes, Desert Falls, Palm Valley, Indian Ridge, and Chaparral and Oasis Country Clubs to the north, and Bighorn and the Canyons at Bighorn, Ironwood Country Club and The Reserve to the south. A wide range of other private resorts, with a variety of private recreational and open space amenities, have also been developed in the City. The City's growing international reputation as a destination resort community provides additional depth to the community's economy, while generating lower demand for many public services and facilities.

Finally, it is important to recognize that the expendable discretionary spending by seasonal residents and tourist visitors constitute a net importing of wealth that initiates rather than is a secondary aspect of the economic multiplier effect. These "new" monies have a significant stimulating effect on and benefit to the local economy.

Educational Institutions:

The third leg of the City's economy is comprised of a variety of educational institutions and opportunities emerging in the City. As a potentially important factor for continued and diversified economic growth, education has been emerging over the past four decades since the development of College of the Desert next to the Civic Center. In the past decade, California State University-San Bernardino has had a branch campus at COD operating out of temporary buildings. The education industry provides a remarkably stable employment base that, compared to tourism and retailing, is less subject to economic fluxuations and is more recession-proof. Education is also an important conduit for revenue streams into the community, which do not originate here.

With the donation of land at the northeast corner of Frank Sinatra Drive and Cook Street, the CalState Palm Desert Campus has initiated development of a 200± acre Palm Desert campus that will eventually serve up to 25,000 students both on campus and through distance learning programs. At buildout, the CalState campus will include schools of Education, Social and Behavior Sciences, Engineering, Natural Sciences, Business and Humanities. At buildout, the CalState campus will be by far the largest employer in the City, with more than 3,200 full-time faculty, managers and supervisors, professional and technical, and administrative staff positions.

University-based employment and activities are also expected to serve as the catalyst for a wide variety of other ventures and enterprises. University-based research and development in water technology, alternative energy and hydrogen fuels, natural resources management and other areas where the Coachella Valley enjoys a comparative advantage should also be encouraged. University curricula and research programs will provide unique economic development opportunities for the City and the region that cannot happen without the incubating environment they create.

College of the Desert has and will continue to play an important role in the City's economy. Providing approximately 500 jobs and important programs supporting transportation and energy research, as well as golf course and related management, COD has enhanced education and employment opportunities for a broad socio-economic cross section of the community and the valley.

The Heckman Center for Entrepreneurship at the University of California is also expected to contribute to local employment and could have more profound effects on the City and regional economy. The region has already attracted business development in such areas as water resources technology, pharmaceuticals, and agri-business. Other areas where new business development may occur include the full range of solar technologies, alternative fuels and transportation technologies, horticultural and bio-research, and other areas of emerging technology.

K through 12 educational services are provided in the City and planning area by two public systems, Palm Springs and Desert Sand Unified School Districts. A variety of private and religion-based schools are also located within the planning area and vicinity (see Schools and Library Element). K through 12 educational and social experiences are essential to a well prepared student body that can take full advantage of opportunities in higher education. Investments in pre-schooling will also pay individual and community-wide dividends and enhance and facilitate the entire educational system serving the community..

DEMOGRAPHIC TRENDS

Population

Like much of southern California, Riverside County experienced extremely rapid growth during the 1980s. Population growth slowed somewhat during the economic recession of the early 1990s, but has continued to grow rapidly since then. U.S. Census data indicates that the County population increased from 663,923 in 1980, to 1,110,000 in 1990, to 1,545,387 in 2000. The Coachella Valley has also experienced extremely rapid growth, particularly over the past decade. The combined population of the Valley's nine incorporated cities was 182,535 in 1990, and it had increased to 255,790 by 2000, representing a 40% increase over ten years.

Population growth in the City of Palm Desert is consistent with County and regional growth trends. Since its incorporation in 1973, the City's permanent population has nearly doubled every decade. U.S. Census data indicates that the City population increased from 11,081 in 1980, to 23,252 in 1990, to 41,155 in 2000. Year 2000 Census data indicate that the populations of other communities in the General Plan planning area are as follows: Thousand Palms, 5,120 residents; Bermuda Dunes, 6,229 residents; other unincorporated areas, including Del Webb's Sun City, Sky Valley, and Cahuilla Hills, approximately 9,000 residents. The Year 2000 population of the entire General Plan planning area, therefore, is estimated at 61,504 residents.

Like other Coachella Valley communities, the City of Palm Desert is home to a large seasonal population of winter and vacation homeowners. The City estimated that its 1999 seasonal population was approximately 21,000 residents, while other sources estimate that it may be as high as 28,225. These individuals are not included in the permanent population data described above, but they play a key role in the City's economy and must be factored into the planning of future roadways and infrastructure, and the provision of public services and facilities.

The 1990 U.S. Census indicated that the City's median age was 42.3 years. By 2000, the median age had increased to 48.0 years. As shown in the table below, Palm Desert attracts a large percentage (35.4%) of young and middle aged adults, between 25 and 54 years, who may be attracted to the City's wide range of retail and service employment opportunities. Adults 65 and years of age and older also comprise a relatively large percentage (27.5%) of the City's population. Many of these residents are retired and/or second homeowners and are attracted to the Coachella Valley's climate, spectacular scenery, and resort lifestyle.

Table III-39
Age Distribution, 2000

Age	Number	% of Total
Under 19	7,744	18.8%
20-34	6,030	14.6%
35-44	5,372	13.0%
45-64	10,728	26.0%
65+	11,410	27.6%
Total	41,284	100%

Source: 2000 U.S. Census

With the annexations that have occurred in the past decade (1990 to 2000) and the steady increase in the median cost of a new home in the City, it is unclear whether and to what extent demographic trends have been a result of internal growth versus annexation. Clearly, however, there are policy implications with regard to employment growth in the service sector and the growing disparity between associated household incomes and the cost of new housing in the City. If the City is to continue to attract families with children an effort must be made to assure a broader range of housing, especially in the middle income range.

Household Size and Income

Household size represents the number of people living in a dwelling unit. The City's average household size does not account for those living in group housing, such as convalescent care or nursing homes, the effects of which on the City's average household size are negligible. According to the U.S. Census, in 1990, the City had a total of 10,588 households and an average household size of 2.18 persons per household. By 2000, the number of households had nearly doubled, reaching 19,184, but the average household size had decreased somewhat to 2.13 persons per household. Although 59.5% of households were occupied by families, a large percentage (40.5%) consisted of "non-family households," in which the householder lived alone or with non-relatives.

The 1990 Census identified the City's median household income as \$37,315, slightly higher than the Riverside County equivalent, which stood at \$36,000 for the same time period. The 2000 Census identified a median household income in the City of \$48,316, a 29.5% increase over the 1990 median household income of \$37,315 for the City. The following table lists the number of households in each income range in 2000.

Table III-40
City Household Income Distribution, 2000

Income	No. of HH	% of Total
Less than \$10,000	1,413	6.5%
10,000-14,999	1,043	5.4%
15,000-24,999	2,128	11.0%
25,000-34,999	2,306	11.9%
35,000-49,999	3,111	16.1%
50,00-74,999	3,715	19.2%
75,000-99,999	1,938	10.0%
100,000-\$149,000	1,919	9.7%
\$150,000-\$199,999	815	4.2%
\$200,000 +	982	5.1%
Total	19,370	100%*

Source: 2000 U.S. Census

*Differences due to rounding.

Employment Characteristics

Like most Coachella Valley residents, Palm Desert residents tend to work within the local area. In 1990, the City of Palm Desert had a workforce of 11,623 individuals. As shown in the table below, the industries employing the greatest number of City residents were retail trade, finance/real estate/insurance, and personal services. The Census data also provided information on employment distribution in 2000. Of a total workforce of 17,384, the largest sectors for employment were retail trade and services.

Table III-41
City Employment by Industry, 2000

Industry	No. of Employees	% of Total
Agriculture/Forest/Fish/Mining	82	0.5%
Construction	1,427	8.2%
Manufacturing, Durables	492	2.8%
Wholesale Trade	390	2.2%
Retail Trade	2,167	12.5%
Transportation, warehousing & utilities	530	3.0%
Information	372	2.1%
Finance, insurance & real estate	1,705	9.8%
Professional, scientific, management & administration	1,806	10.4%
Educational, health & social services	3,051	17.6%
Arts, entertainment, recreation, hotels & food service	3,760	21.6%
Other services (except public administration)	992	5.7%
Public Administration	610	3.5%
Total Employment by Industry	17,384	100%

Source: 2000 Census

Table III-42
Employment of Palm Desert Residents, 1990

Industry	# of Employees	% of Total
Agriculture/Forest/Fish	234	2.0%
Mining	11	0.1%
Construction	963	8.3%
Manufacturing/Durables	298	2.6%
Manufacturing/Non-Durables	235	2.0%
Transportation	263	2.3%
Communications/Public Utilities	256	2.2%
Wholesale Trade	340	2.9%
Retail Trade	2,755	24.0%
Finance/Real Estate/Insurance	1,237	10.6%
Business/Repair Service	680	5.9%
Personal Services	1,117	9.6%
Entertainment/Recreation	700	6.0%
Health Services	835	7.2%
Educational Services	756	6.5%
Other Professional Services	667	5.7%
Public Administration	246	2.1%

Source: U.S. Census, 1990.

Jobs in Palm Desert

Palm Desert's dominance in the regional retail and service markets makes it the largest employment center in the Coachella Valley. A 2000 report prepared for the Coachella Valley Economic Partnership found that while about 11.3% of valley residents live in the City, nearly 25% of all valley residents work in Palm Desert, the largest percentage working in any single Coachella Valley city. With approximately 140 shops and 3 department stores at the Westfield Shoppintown, and approximately 43 specialty stores and restaurants at the Gardens on El Paseo, the City offers a wide range of retail and service-oriented employment opportunities. Palm Desert's largest employers are listed in the table below. As described in the taxable sales discussion below, City retail stores alone totaled more than 1,250 in 2000. Clearly, the City is a major employer in the retail service trades, which has implications for housing and transportation policy.

The City's unemployment rate also fluctuates on a seasonal basis, with the lowest unemployment generally corresponding to the snowbird and tourist season and the highest unemployment occurring during the summer months. Nonetheless, the City's unemployment rate is relatively stable. During the City's 2001-02 fiscal year, the peak unemployment rate was 4.0 percent and the lowest was 2.9 percent (Source: CA. EDD). Some of the major employers within the City are listed below and will be joined in coming years by new jobs being created at the CalState campus and in other new developments, especially in the retail and hospitality sectors.

Table III-43
City of Palm Desert Major Employers, 1999

Employer	Number of Employees
Westfield Shoppingtown	2,750
Marriott's Desert Springs	1,800
Desert Sands Unified School District	1,385
College of the Desert	500
Robinson-May Company	350
Sunrise Company	325
Macy's	75
Foundation For the Retarded	75
J.C. Penney	33
Waste Management of the Desert	150
U.S. Filter	133
City of Palm Desert	126

Source: City of Palm Desert Redevelopment
Agency.

DEVELOPMENT TRENDS

Residential Development

Housing Characteristics

According to the U.S. Census, there were approximately 9,426 housing units in Palm Desert in 1980 and 18,248 in 1990. By 2000, the California Department of Finance estimated that this number had grown to 28,882, an increase of about 58% over ten years. A comparison of 1990 and 2000 housing characteristics is provided in the following table. The greatest growth has occurred in the number of single-family detached homes, which reflects the City's suburban character. Growth in housing is also the result of several annexations undertaken by the City since 1990, including three large annexations in the northeastern portion of the City.

Table III-44
City Housing Characteristics, 1990 vs. 2000

Type of Structure	Number of Units	
	1990	2000
Single-Family, detached	5,581	11,143
Single-Family, attached	6,472	9,961
Multi-Family, 2-4 units	2,035	2,383
Multi-Family, 5+ units	2,774	4,192
Mobile Homes	1,179	1,203
Other	207	n/a*
Total	18,248	28,882

* "Other" housing units not categorized by CA Dept. of Finance in 2000.
Source: 1990 U.S. Census; California Department of Finance, January 1, 2000.

According to the 2000 Census, there are approximately 2,557 housing units in the community of Thousand Palms and 2,937 units in Bermuda Dunes, which are located in the expanded General Plan planning area. For more information about housing unit characteristics, including vacancy status and opportunities for affordable housing, please refer to the General Plan Housing Element.

Housing Valuation Trends

According to the 1990 U.S. Census, the median housing unit value in Palm Desert was \$172,600, and the median contract rental rate was \$616 per month. Updated data from the 2000 Census is not yet available; however, updates from other sources indicate a substantial rise in housing prices since 1990. The Inland Empire Quarterly Economic Report, which provides quarterly economic profiles for all jurisdictions in the Inland Empire, indicates that the median price for existing homes in Palm Desert during the first quarter of year 2000 was \$192,500, and the median price for new homes was \$308,056. Building permit data obtained from the City's Building and Safety Department supports these estimates. During 2000, 417 new single-family dwelling units were constructed, with a combined value of \$136,189,287. This yields an average value of \$326,593 per unit.

Vacation and Second Home Market

While the residential development statistics include second or seasonal homes, they do not provide insight into the tremendous positive economic effect these homes and their residents have on the local economy. Second or seasonal homes are typically located within private gated communities, which provide their own on-site recreation and social amenities such as golf courses, tennis facilities and clubhouses. Most of the residents in these developments are "empty-nesters" or retirees who have a higher than average level of disposable income and place fewer demands on the City for public services and facilities.

Residents in second and seasonal homes also make substantial contributions to taxable sales within the City, in such areas as home furnishings, apparel, sporting equipment and activities, specialty retailing, fine dining and entertainment. The City's extensive and attractive commercial services and shopping venues provide the kind of shopping experience that helps to keep this source of commercial activity within the community. Many of the City's seasonal residents are also important supporters of the arts and cultural activities of the City, which has also enhanced the overall economy of the community.

Palm Desert has become popular as a retirement community, which is indicated by the increase in the average age of its residents. In addition to having a higher than average disposable income, retirees also take advantage of the many leisure activities and facilities of the community, including golfing on the City's many courses. Older retirees also generate demand for a variety of special services, including medical and therapeutic services, in-home and skilled nursing services and facilities, and domestic/housekeeping services. Retirees are also net importers of new wealth, that is, they bring in and expend pension and other retirement funds that did not originate in the community.

As with other aspects of the City's economy, the success of the vacation and second home market has been a result of the unique natural and built environment in the City and the region. The City's "urban village" scale and intimacy has been integrated with the natural environment. The visually and physically accessible desert and mountain areas are integral to the continuing success of Palm Desert as a seasonal home and vacation mecca.

The Future for Residential Development

Opportunities are expected for future residential development in the City and its planning area that will provide for the full range of housing types and socio-economic sectors. Additional acreage for golf course-oriented resort development is available in the northern portion of the City and north of I-10. In addition to lands in the University Park planning area, future development of the North Star Ranch and expansion of Jack Ivey Ranch immediately north of I-10 will continue this development trend into the foreseeable future.

The General Plan also provides for the development of conventional single family subdivisions on public streets and with convenient access to commercial services, schools and parks. Lands planned for higher density development, both in the University Park planning area and north of I-10 will also address the middle income market and the need for affordable housing. Densities ranging from five to 20 units per acre should help assure that the City provides its fair share of housing, for local employees who are also contributing to the economic base of the community.

Commercial Development

Commercial development, which provides goods and services to residents, visitors and businesses, is an important component of any community. A healthy commercial economic base generates sales tax revenue for local government and is an important source of employment for the local population.

Commercial Development Characteristics

Over the past decade, the City of Palm Desert has positioned itself as the retail and personal services powerhouse of the Coachella Valley. The City draws its customer base from throughout the Coachella Valley and surrounding mountain and desert communities. Commercial establishments range from department and general merchandise stores, to high-end specialty retail stores, fine apparel shops, and art galleries. Palm Desert is also home to a number of local and national chain eating and drinking establishments, as well as banking, insurance and other service-oriented businesses.

Commercial development is largely concentrated around the Highway 111 corridor and anchored by the Westfield Shoppingtown mall and the more exclusive El Paseo shopping district. Smaller community-scale retail centers, like Palms to Pines Plaza, Desert Crossing, and Waring Plaza, contain a wide range of retail and restaurant establishments, including national retailers like Barnes & Noble, Marshall's, and Bed, Bath & Beyond.

El Paseo has become known as the "Rodeo Drive of the Desert" and is a major contributor to not only taxable sales but also the City's reputation as an elegant, upscale shopping venue. The El Paseo shopping promenade provides an enhanced and diversified shopping experience ranging from on-street storefront jewelry and apparel stores and art galleries, to a full range of dining opportunities. The Gardens at El Paseo provide an open air environment supporting a synergistic collection of shopping and dining opportunities that extend retailing activity well into the evening hours.

Newer market areas developing in the City include the large-scale regional retail center at the northwest corner of Monterey Avenue and Dinah Shore Drive, which includes "big-box" retailers like Costco and Petsmart and is conveniently accessed by Interstate-10. Other commercial development includes hotels, motels and resorts, such as the Marriott Desert Springs Resort on Country Club Drive and Embassy Suites Hotel on Highway 111. In 1999, Marriott opened two new hotels, Residence Inn and Courtyard by Marriott, on Cook Street and Frank Sinatra Drive. Each of these facilities can accommodate business meetings and large conventions, and caters to both the business and leisure traveler.

Taxable Sales and Sales Tax Revenue

In 2000, the City's sources of taxable sales included a total of 1,251 outlets, of which 211 were apparel stores, 183 eating and drinking establishments, 136 home furnishings and appliance outlets, and 721 "other retail stores" that didn't fit into major categories used by the state for recording purposes. Taxable transactions figures for 1996 through 2002 are provided in the following table and illustrate the City's substantial growth in taxable sales over this five-year period. Taxable transactions in Palm Desert grew from approximately \$746 million in 1996 to more than \$1.2 billion in 2001, an increase of about 63%.

Table III-45
1990-2002 Taxable Sales Trends
City of Palm Desert

Year	Total Retail Stores (\$000)	Total All Outlets (\$000)
1990	\$ 420,021	\$ 528,866
1991	413,938	515,648
1992	425,833	526,926
1993	492,828	599,585
1994	532,914	637,909
1995	569,164	682,490
1996	621,839	746,463
1997	682,759	829,820
1998	768,553	923,979
1999	912,663	1,091,211
2000	1,020,025	1,217,986
2001	1,015,932	1,211,069
2002 (1 st and 2 nd Quarters)	519,087	619,289
Source: "Taxable Sales in California (Sales & Use Tax)," California State Board of Equalization.		

Based on the data provided in the table above, City businesses are generating substantial taxable sales. It appears that sales volumes are significantly higher than City residents are capable of generating by themselves. With a median household income of \$46,536 and an average of 2.13 persons per household, the City's per capita income is approximately \$21,847. However, for Palm Desert's 41,155 residents to have generated annual taxable transactions of \$1.2 billion in year 2000, each resident would have had to spend \$29,595 on taxable transactions. Taxable transactions are, therefore, far exceeding the spending potential of City residents.

It follows, therefore, that City businesses are attracting additional sales from residents living elsewhere in the Coachella Valley and other regional markets. This is due to several factors, including the City's ability to attract both large national retail chains, retail outlets, and "big box" retailers, which offer a wide range of products, as well as exclusive specialty shops for higher income shoppers. The City's strategic position in the geographic and demographic center of the Coachella Valley makes it easily accessible to a large consumer market.

Because taxable sales in Palm Desert have grown so significantly in recent years, so too have the City's sales tax revenues. Sales tax is collected on taxable goods at the time of purchase. The City receives \$ 0.01 of the \$ 07.75 tax levied per taxable dollar spent, and the remainder is allocated to the state, county and other public funds. Sales tax revenue has consistently been the City's largest General Fund revenue source, and is expected to comprise nearly 40% of all General Fund revenues during Fiscal Year 2000/01. Sales tax revenues have grown from \$7.2 million in Fiscal Year 1994/95 to \$10.8 million in FY 1998/99. The City budgeted \$12.3 million in sales tax revenues during FY 2000/01.

Tourism and Traveler Revenues

The Coachella Valley has long been recognized as a major resort destination and is best known for its unique desert environment and climate. For decades, tourism has been the mainstay of the regional economy, and much of Palm Desert's economic well-being is directly related to the success of its hotels and resorts. The following table provides an inventory of Coachella Valley hotel/motel facilities and annual revenues for 1999, and indicates that the City of Palm Desert enjoys a significant share of the regional hotel/motel market.

**Table III-46
Hotel/Motel Inventory for the Coachella Valley, 1999**

City	No. of Hotels	No. of Rooms	TOT Rate	TOT Collections	Gross Hotel Room Sales
Cathedral City	7	529	10%	\$1,139,882	\$11,398,820
Desert Hot Springs	41	873	10%	\$721,661	\$7,216,613
Indian Wells	4	1,273	9.25%	\$4,330,471	\$46,815,903
Indio	23	1,407	10%	\$880,246	\$8,802,462
La Quinta	3	652	10% or 11%	\$3,685,326	\$33,843,166
Palm Desert	14	1,896	9%	\$7,602,348	\$84,470,536
Palm Springs	132	6,366	10% or 10.8%	\$11,225,402	\$107,415,950
Rancho Mirage	4	1,306	10%	\$5,079,551	\$50,795,509
Unincorporated Riv.Co.	6	295	10%	N/A	N/A
Total	227*	14,597*	---	\$34,664,888	\$350,758,958

* Excludes condominiums, timeshares, and rental properties other than hotels/motels. Source: Palm Springs Desert Resorts Convention and Visitors Bureau.

As described in the table above, there were 14 hotels/motels with 1,896 rooms in Palm Desert in 1999. Gross hotel room sales totaled nearly \$84.5 million and represented about 24% of all hotel/motel room sales in the Coachella Valley. According to the Palm Desert Visitors Center, by 2001, the number of hotels/motels in the City had grown to 16. These facilities range from the world-class Marriott Desert Springs Resort and Spa, to the Embassy Suites Hotel, to more modest facilities. Marriott's Residence Inn and Courtyard hotels, constructed in 1999 on Cook Street and Frank Sinatra Drive, will further enhance the City's tourism and economic development opportunities.

The City has made significant efforts to promote its resort and tourism industry nationally and internationally, including the establishment of the Palm Desert Visitors Information Center and the City's web site. These efforts should continue to be joined with those of the Palm Springs Desert Resorts Convention and Visitors Bureau and other related parties to market the City to the vacationing public on all fronts.

Continued strength in the regional tourism industry has resulted in a steady increase in transient occupancy tax (TOT) revenues. Transient occupancy taxes are imposed on individuals for occupying any hotel or motel room in the City. The TOT rate in the City of Palm Desert is 9%, which is added to the occupant's hotel bill and remitted to the City by hotel/motel operators on a monthly basis. This rate is among the lowest levied by Coachella Valley cities. TOT revenue trends are described in the table below.

Table III-47
City of Palm Desert
Transient Occupancy Tax (TOT) Revenues

Fiscal Year	Actual TOT Revenue
1994/95	\$4,653,958
1995/96	\$4,919,263
1996/97	\$5,459,239
1997/98	\$6,130,539
1998/99	\$6,725,265
1999/00	\$7,280,625
2000/01	\$7,385,707

Future Commercial Development

The City has successfully established itself as the dominant regional retail center, with a wide range of shopping opportunities to satisfy residents and visitors of various income levels. The City should continue to market itself as the central, most comprehensive commercial center of the Coachella Valley and build upon this strong foundation by retaining existing and attracting new businesses that boost the City's image as a full-service visitor-friendly marketplace.

The most significant City-sponsored commercial effort underway at this time (2001) is the marketing of three vacant parcels on the City-owned Desert Willows Golf Course site. One of the parcels has been purchased by IntraWest Resort Corporation, which has already constructed the first phase of a 600-unit timeshare development. The City is marketing the two remaining parcels for hotel development, and is hoping to attract a conference center/convention facility to one of the sites. At buildout, the two parcels are expected to accommodate approximately 250 and 420 hotel rooms each.

The Highway 111 commercial corridor is essentially built-out, and future construction in this vicinity will be limited to infill development and, ultimately, redevelopment. In recent years, new commercial development has pushed toward the northern City limits to take advantage of the availability of vacant land and regional access provided by Interstate-10. Future development is also likely to occur in this area. Vacant parcels on the east side of Monterey Avenue, south of I-10, are suitable for regional commercial development, including "big box" retail, and would benefit from the consumer base already provided by Costco and Petsmart, and the Monterey MarketPlace development in neighboring Rancho Mirage.

Future commercial development opportunities are largely concentrated in the northern portion of the City and in the planning area north of Interstate-10. South of the Interstate-10 corridor, from Monterey Avenue to Cook Street, commercial development is expanding and is expected to provide for a wide range of commercial demand, including highway-oriented services, additional "big-box" retailing, traveler-serving hotel and motel development, and a full range of neighborhood commercial to serve the growing residential market in this area.

The General Plan also anticipates important opportunities for commercial-related synergies associated with the buildout of the CalState University campus and associated facilities, including the planned future sports arena. As discussed elsewhere, a full range of commercial

development, including entertainment retailing, dining, nightclubs and other retailing are expected to develop along the Cook Street corridor and to provide the City with another dynamic commercial district supported by local residential, tourist and resort development, and the University.

The City should also give near-term consideration to annexing lands immediately north of I-10, in the vicinity of Monterey Avenue and Cook Street, and on the west side of Washington Street, to facilitate the development of highway-serving and regional commercial uses. A well-orchestrated annexation effort in this direction would not only expand City access to I-10, but would allow the City and highway-serving businesses to capture a larger share of this drive-by market. City control of these lands will also assure that the quality of development that occurs there is consistent with these sites as gateways to the City.

Industrial Development

With the exception of agri-business, the Coachella Valley has few examples of industrial development beyond certain niches that can do well within the geographic and demographic constraints and limitations of the area. Neither has the region had, until quiet recently, the kind of stimulus and opportunities for synergies typically associated with a nearby university campus. Industrial development in the City is largely limited to light and service-oriented businesses supporting the construction industry, and demands generated by commercial and residential development. Less light industry and more business park development has occurred within the City's "industrial" area east and west of Cook Street and defined by the Whitewater River on the south and Hovley Lane on the north.

With the development of the California State University campus and its planned six schools of focus, the City and the region may benefit from and have opportunities for growth of research and development (R & D) industries typified by clean or non-polluting operations conducted within enclosed buildings, and employing highly trained and well paid specialists in research and technology. An R & D industrial park in the immediate vicinity of the university can provide important opportunities for development of business incubators that are fed by academic and research activities at the campus. These synergies have been key to the diversifying of economies in many communities, and the Coachella Valley provides many natural advantages for R & D development. The type of industrial development envisioned generates limited demand for public services and facilities, including low traffic generation and limited impacts on other public and environmental resources.

The University Park planning area provides for business park and light industrial development south of and adjacent to the Interstate-10/Union Pacific Railroad corridor, from Monterey Avenue to the eastern terminus of Gerald Ford Drive. This location is ideal for industrial development geared toward research and development, given the proximity of these lands to the university campus and convenient access provided by regional arterials and US Interstate-10. Potential access to the lines of the Union Pacific Railroad may also benefit some future industrial users. Over the long-term, it is expected that these supporting industries will enhance the skills and professional qualifications of the local and regional labor force and help satisfy the employment needs of the community.

Clearly, the City should preclude the development of medium and heavy industry in areas of the community or planning area where such development would adversely impact and/or be incompatible with the important aesthetic, environmental or resort qualities that define the community. All proposals for industrial development should be carefully evaluated to assure that they do not adversely affect the City's primary economic resources, including resorts and tourism, and the natural environment and resources.

CONSTRUCTION VALUATION TRENDS

Over the past decade, the value of new construction in Palm Desert have varied widely, ranging from a low of \$70.2 million in 1991, to a high of \$254.7 million in 1998. During the early to mid-1990s, the latest economic recession to impact Southern California and the City of Palm Desert, annual building valuations generally hovered between \$70 million and \$136 million. Since 1997, however, construction values have increased steadily, ranging between \$166 million and \$254 million, and representing the highest valuations in Palm Desert history. Table III-48, below, describes building permit activity over the past decade and provides a general overview of development trends in the City. The data account for all building permit activity, including new development, structural alterations and additions, demolitions, and other improvements.

Table III-48
Building Permit Activity, 1990 – 2000

Year	Valuation	No. of Permits
1990	\$ 89,912,854	4,518
1991	\$ 70,206,475	3,278
1992	\$136,251,421	4,439
1993	\$ 74,560,847	3,605
1994	\$101,368,670	4,162
1995	\$ 98,299,745	4,377
1996	\$106,325,577	4,039
1997	\$166,035,678	5,166
1998	\$254,758,860	6,886
1999	\$197,654,627	6,015
2000	\$209,416,185	5,672

Values represent all building permit activity, including new construction, structural alterations, other improvements, and demolitions. Source: Palm Desert Dept. of Building and Safety, June 13, 2001.

More specific valuation data is available for 1995 and subsequent years. The table below describes new development activity in Palm Desert and indicates that single-family residential development, including detached single-family homes and attached condominiums, has comprised the lion's share of new construction since 1995. Multi-family apartment buildings have been a more modest contributor to overall development in the City. The value of new non-residential development has fluctuated widely since 1995, with the construction of commercial structures (including general commercial, retail, and lodging facilities) providing the highest valuations in this category, although office development outperformed commercial development in 1999 and 2000. Industrial development valuations have remained relatively steady since 1995, but increased substantially in 2000, when they accounted for more than \$7.5 million.

Table III-49
New Construction Activity
City of Palm Desert, 1995 - 2000

	New Construction Valuation (\$)					
	1995	1996	1997	1998	1999	2000
Type of Construction						
Apartment Building	0	520,695	0	825,286	0	0
Single Family Condo	28,637,356	24,558,930	5,818,687	20,717,337	639,125	14,548,341
Single Family Dwelling	34,755,175	50,126,128	112,457,569	160,640,256	150,132,902	136,189,287
Commercial	16,838,990	6,430,193	20,426,611	19,569,670	2,421,651	6,160,516
Office/Professional	997,449	4,633,970	894,766	1,538,320	5,161,784	7,829,889
Industrial	1,098,700	0	2,100,695	3,600,820	2,238,248	7,561,857
Total Value of New Construction	82,327,670	82,269,916	141,698,328	206,891,689	160,593,710	172,289,890
Total No. of Permits for New Construction	270	317	531	722	519	466

Source: Building Department Activity Reports, 1995-2000, provided by Palm Desert Building and Safety Dept.

OPEN SPACE ECONOMIC OPPORTUNITIES

Over the past decade, environmental issues have been at the forefront of regional and national policy debates, and natural resources and open space lands have become increasingly important attractions to the vacationing public. The natural assets of the Coachella Valley, especially the tremendous desert and mountain vistas, have been essential to its development as a world-renowned destination resort area. This expanded interest in has also led to the development of eco-tourism, which provides an economic development opportunity for the City to market and gain direct economic benefit from these City and regional environmental resources.

The Living Desert Natural Preserve is located within the Palm Desert city limits and attracts approximately 300,000 visitors per year. The Coachella Valley Preserve, which is part of the Coachella Valley Fringe-Toed Lizard Preserve System, is located in the northerly portion of the planning area and is widely utilized by the public for its educational and recreational value. Highway 74 provides important regional access to the Santa Rosa Mountains National Scenic Area, the Santa Rosa and San Jacinto Mountains National Monument, and the numerous mountain trails that allow residents and visitors to enjoy the area's natural assets have clearly emerged as economic assets that warrant wise use and thoughtful long-term preservation.

This emerging market offers new economic opportunities to the City and complements and enhances the City's image as a special and unique destination resort community. Protecting, preserving and enhancing these core natural resources are essential to protecting the City's predominant resort and tourism-based economy. (For more information about natural resource areas in and around the City, please refer to the Open Space and Conservation, and Parks and Recreation Elements of the General Plan.)

CURRENT ECONOMIC CONDITIONS IN PALM DESERT

In recent years, the City of Palm Desert has been consistently ranked as one of the top five fastest growing cities in California and has enjoyed a reputation as a financially sound, pro-business community. The City's strategic location in the heart of the Coachella Valley (almost equidistant between Palm Springs and Indio, the region's two most populated cities) has played an important role in its ability to attract a wide range of retail and service commercial development and dominate the region's retail industry.

Its resort hotels are nationally known for their ability to accommodate large-scale conferences and meetings, and are tailored to meet the needs of both the business and leisure traveler. While the City enjoys a large and lucrative commercial base, the expansion of clean research and development industries, high-tech, and other business opportunities may further enhance the CalState University's important role in the local economy its long-term prosperity.

An understanding of the City's role in the economy of the Coachella Valley is critical to the formulation of appropriate economic development goals, policies, and programs. In 1999, the City's assessed property valuation (\$5.8 billion) and taxable sales (\$1.1 billion) ranked first in the Coachella Valley and are reflective of its reputation as a high-end resort community and commercial powerhouse. The City ranked second in regional hotel room sales (\$84.5 million), which are largely generated by its world-class resort hotels, most notably those operated by Marriott.

Revenue Trends

Recent trends in the City's major general fund revenues are provided in Table III-50. Over the past five years, the City has experienced steady growth in sales taxes, transient occupancy taxes (TOT), and franchise fees. Interest income has fluctuated with changes in interest rates over time. Property tax revenues have generally increased, but have been more sensitive to the rise and fall of the real estate market.

Table III-50
Palm Desert General Fund Revenues
Historic Trends, Fiscal Year 1996/97 to 2000/01

Revenue Type	FY 01/02 Projected (\$)	FY 00/01 Actual(\$)	FY 99/00 Actual(\$)	FY 98/99 Actual(\$)	FY 97/98 Actual(\$)	FY 96/97 Actual(\$)
Sales Tax	13,000,000	13,619,607	13,203,564	10,877,715	9,594,560	8,942,146
TOT	7,000,000	7,385,707	7,280,625	6,725,265	6,130,539	5,459,239
Property Tax	2,550,000	2,371,084	2,289,589	2,376,382	2,264,939	2,597,674
Interest/Rentals	2,128,000	2,723,714	2,550,687	2,164,935	2,021,953	2,182,014
Franchise	2,000,000	1,981,697	1,837,806	1,612,055	1,540,656	1,395,523
State Subvention	2,560,500	2,284,264	2,014,455	1,756,323	1,569,116	1,365,641
Combined Other ¹	4,538,400	7,096,206	6,481,848	6,810,193	5,995,957	5,792,194
Total General Fund	34,589,458	37,462,279	35,658,574	32,322,868	29,117,720	27,734,431

¹ Combined Other represents any combination of transfers, building and grading permits, reimbursements, business license taxes, timeshare mitigation fees, plan check fees, property transfer taxes. It also may include any combination of miscellaneous bails, fees, fines, fundings, grants, incomes, penalties, permits, sales and taxes.

Source: City of Palm Desert

In addition to General Fund revenue, in FY 98/99, the City received more than \$10.4 million from special revenue funds, which are legally restricted to specific purposes. Adopted FY 99/00 special revenue funds totaled about \$9.1 million, and requested FY 00/01 special revenue funds total more than \$12.3 million. These funds provide for a wide range of municipal services, including transit and street-related improvements, projects and programs that benefit low and moderate income households, fire protection and prevention, the acquisition and maintenance of public artwork, the development of public facilities and buildings, and park development and maintenance projects.

An additional significant revenue source is tax increment revenue received by the City's Redevelopment Agency (RDA). These revenues are derived from the incremental increase in assessed property values within the City's four redevelopment project areas. The use of tax increment funds is subject to California Redevelopment Law, which requires that 20% of the funds be used for low and moderate housing improvement or development. Estimated FY 99/00 gross tax increment revenues for all four RDA project areas combined equaled approximately \$25.3 million. Revenues totaling about \$27.4 million were budgeted for FY 00/01.

Finally, the City receives revenues from fees or taxes from a number of sources, which can only be used for certain types of projects. These include:

- Traffic and court fines, which are restricted to traffic safety projects;
- Gas tax revenues, allocated annually by the State, which can only be used for transit or roadwork projects;
- Fire tax revenues, which can only be used to upgrade fire services or equipment;
- Art in Public Places funds, which are collected from developers through the building permit process, are allocated to public art projects in the City;
- Fees collected from the Desert Willow Timeshare project are used for physical improvements and equipment at Desert Willow Golf Course;
- Housing Mitigation Fees are collected from developers and used for programs benefiting low and moderate income households; and
- Several fees and taxes charged at the time of development, including the new construction tax (used for parks and public structures), planned drainage fees, parks and recreation facilities fees, and traffic signal fees.

Expenditure Trends

Table III-51 summarizes City General Fund expenditures since Fiscal Year 1997/98. The two highest expenditure categories have consistently been Police Protection and Public Works, which includes costs for street improvements, maintenance of the Portola Community Center, and the maintenance of city parks, the municipal fleet of vehicles, and public landscaped areas.

Table III-51
Palm Desert General Fund Expenditures
Historic Trends, Fiscal Year 1997/98 to 2000/01

Expenditure Description	FY 00/01 Budgeted(\$)	FY 99/00 Budgeted(\$)	FY 98/99 Actual(\$)	FY 97/98 Actual(\$)
General Government	1,753,833	1,699,495	1,691,945	1,352,764
Interfund Transfers	1,618,000	850,624	1,431,614	5,896,232
Police Services	9,119,495	8,912,730	7,157,586	6,887,330
Animal Regulation	98,000	98,000	110,150	75,000
Nuisance Abatement	6,000	6,000	2,530	3,088
Risk Management	303,444	284,460	219,527	223,329
Public Works	8,668,698	7,828,948	6,949,077	5,253,498
NPDES Storm Water Permit	62,500	62,500	5,344	872
Community Promotions	1,725,930	1,626,610	1,677,282	1,683,190
Bright Side Newsletter	153,240	147,600	177,729	128,261
Civic Art Committee	30,500	30,500	13,395	15,214
Bldg & Safety/Demolition	1,314,072	1,109,270	1,424,122	1,257,459
Code Enforcement	490,315	495,440	0	0
Business Support	412,414	405,630	388,743	264,745
Planning/Community Dev.	782,141	956,050	943,165	762,983
Environmental Conservation	440,708	450,560	337,599	247,986
Visitor Info Center	291,858	239,920	187,853	0
Outside Agency Funding	662,655	687,250	588,188	409,776
Total General Fund	30,885,257	28,622,967	25,989,758	32,971,247

Source: City of Palm Desert

REDEVELOPMENT FUNDS

The California Community Redevelopment Law, enacted in 1945, authorizes cities and counties to establish a redevelopment agency, which has the legal authority to redevelop blighted areas that cannot be improved through private enterprise alone. The primary purpose of redevelopment legislation is to provide the impetus for economic growth in blighted areas and to attract new development and capital investment to the community. Although redevelopment agencies have no authority to levy property taxes, their primary source of income, referred to as tax increment revenue, is derived from property taxes. When a Redevelopment Project Area is designated and adopted by a city/county, the total assessed value of all properties contained within the RDA Project Area boundaries is determined. After the Project Area is adopted, the incremental increase in property tax revenues collected within the RDA Project Area is allocated to the Redevelopment Agency. State law governs the use of tax increment revenues and mandates that 20% of the funds must be allocated to low and moderate income housing improvements or development. Tax increment revenue is also used to pay off any debts incurred as a result of financing or refinancing a redevelopment project.

Since its inception in 1975, the Palm Desert Redevelopment Agency (RDA) has established four redevelopment project areas, which, combined, encompass a substantial portion of the current city limits. Project Area #1 was adopted in 1975 and generally contains the Highway 111 corridor. In 1982, nearly all land south of Highway 111 and east of the Palm Valley Storm Channel, and all land between Highway 111 and the Whitewater River Stormwater Channel, was added to this project area. Project Area #1, as amended, contains approximately 11,235 parcels on 5,850 acres.

Project Area #2 was adopted in 1987 and includes the north-central portion of the City. It is generally bounded by Gerald Ford Drive on the north, Portola Avenue on the west, Hovley Lane East on the south, and the Desert Falls Country Club on the east. Project Area #3, adopted in 1991, is the smallest redevelopment area and is generally bounded by the Whitewater River Stormwater Channel on the south, the City limits on the east, Hovley Lane East on the north, and Portola Avenue on the west. Project Area #4 was established in 1993 and includes nearly all lands east of El Dorado Drive and south of Country Club Drive.

According to the City budget, Redevelopment Agency revenues are expected to total approximately \$39.4 million for Fiscal Year 2000-01. This includes property tax increment revenues generated within all four RDA project areas. Expenditures are expected to total approximately \$33.8 million, and include 20% Housing Set Aside funds, pass through payments to other public agencies, debt service on bonds, and reimbursements to the General Fund for staff support and other administrative expenditures. The remaining revenues are available for capital projects, such as roadway and signalization improvements, land acquisition, elimination of drainage deficiencies, utility undergrounding, and commercial rehabilitation. The RDA fund balance in Fiscal Year 2000-01 is expected to be nearly \$40.4 million. This constitutes a significant funding source and allows the City to finance a wide range of capital projects.

Economic Benefits of the RDA

While the use of RDA funds are somewhat restricted, they still are nonetheless an important instrument for economic development and the long-term fiscal health of the community. RDA funds must be expended within or directly benefit specific project areas. They can be used to fund business improvement projects, including facade renovations and signage programs. RDA funds can also be used to stimulate new economic development by helping to write down the cost of land or funding the extensions of infrastructure. Anticipated tax increments can also be used to back the issuance of bonds for the funding of both public and private projects, which can be shown to have a direct economic benefit to the project area. Finally, 20 percent of the tax increment collected by the RDA must be set aside for use in the development, preservation or improvement of affordable housing anywhere in the City. These set aside funds can also be used to extend or upgrade infrastructure that benefits affordable housing.

FUTURE DIRECTIONS

The City's previous economic development efforts have been focused on attracting and retaining retail and service commercial development, which serves Palm Desert residents, visitors, and the broader Coachella Valley population. This strategy has succeeded in the past and has helped create the City's well-deserved reputation as a comprehensive regional marketplace. Although the City's financial position is sound, an aggressive economic development program can protect against future economic slowdowns.

The City's two strongest economic sectors historically, regional retail and tourism, both benefit from the dollars brought into the City by visitors and residents of other cities. Because of the importance of the City's retail sector, much more is spent in Palm Desert shops than would be spent by only its residents.

This influx of revenues benefits the City both directly and indirectly. Direct impacts are demonstrated in retail sales tax revenues, which flow to the City General Fund. Indirect benefits can be even more significant, however. Every dollar spent in the City results in economic “multipliers” – a successful shop hires new employees, who in turn, with their new paychecks, spend money in Palm Desert shops, which need eventually to expand their space or open a second shop, which creates a need for more employees.

As the City matures, it has the opportunity to expand its economic base through the expansion of the education sector. The City has for many years benefited from the College of the Desert campus, and the multi-faceted programs which have attracted students from throughout the Valley. With the opening of the Coachella Valley Campus of California State University, San Bernardino, and the Heckman Center associated with the University of California, Riverside, the City has become the educational center of the Valley as well.

At buildout, the campus will be the largest employer, but it also has the potential to stimulate the development of supporting R & D enterprises, training programs, and other cooperative public/private partnerships from both within the Valley and further afield. The same economic “multipliers” which apply to visitors and residents of other cities will apply to students and those employed at the colleges and universities. The continued health of these institutions is critical to the City’s long-term well being, not only economically, but also because of their value in improving the quality of life for Palm Desert’s residents.

The past strengths of Palm Desert’s economic base, and the strength it is developing in higher education should be used as a guide for future policy direction. Land use decisions, especially those associated with the University Park planning area, must carefully consider the balance between economic growth and its impacts on quality of life for residents and visitors. These impacts can range from traffic congestion to loss of open space areas, and can have long-term negative impact on residents’ lifestyles and the local economy. The quality of life that can be enjoyed by those who live in Palm Desert is an asset, which the City has and should continue to promote in concert with and integral to economic development efforts. As the City considers future development projects, both quality of life and economic benefit issues must be evaluated. A project that would create many jobs, but which would generate high levels of air pollution, for example, may be an economic benefit, but have a negative impact on quality of life and the aesthetic values of the community. The City must consider the impacts on its population, its existing economy, and the region in making future land use decisions.

To continue to support its retail sector, the City should encourage the continued development of community-scale commercial development along the I-10 corridor and Monterey Avenue, and evaluate the potential expansion of service-commercial development immediately north of I-10. Preservation and redevelopment of the Highway 111 corridor and El Paseo should also be considered important goals in the future. The emerging opportunities in the northern portions of the City and along the Interstate-10 corridor also warrant careful consideration and thoughtful development.

The coordinated marketing efforts of the City's Visitors Center, web page, and Business Support Center, in conjunction with the efforts of other agencies, such as the Palm Springs/Desert Resorts Convention and Visitors Bureau and the Palm Desert Chamber of Commerce, are essential to maintaining and strengthening the City's image as a business-friendly and visitor-friendly community.

Policies and programs for the City's fiscal management should also be closely integrated with the Community Design and Public Services and Facilities elements of the General Plan.

GOALS, POLICIES AND PROGRAMS

Goal 1

A healthy, balanced economy that preserves and strengthens the three legs of the City's economy, including commercial retail, resorts and tourism, and education and culture.

Goal 2

A diverse economy that provides a wide range of employment opportunities and public services and facilities, while maintaining high standards of development, environmental protection and an enhanced quality of life.

Goal 3

An appropriate mix of commercial, tourist and other revenue generating land uses with long-term viability and ability to continue to fund a high level of community and economic development activities in the City.

Goal 4

A prudent, yet progressive financial management program that in the near and long-term maintains the City's strong fiscal position.

Policy 1

The City's land use plan shall provide a thoughtful, balanced and synergistic mix of residential, commercial, resort and tourist, R & D industrial and institutional development, and recreational/open space amenities that maintain and enhance the City's core economic assets.

Program 1.A

The City shall routinely monitor the remaining capacity of vacant and under-utilized lands, and assess lands within each General Plan land use category to assure that an appropriate variety of economic development opportunities are available to the private sector.

Responsible Agency: Community Development Department, Finance Department, City Council

Schedule: Continuous; Every Five Years

Program 1.B

All proposals for new development or redevelopment shall be evaluated to assure that these uses complement, support and are compatible with the City's core economic assets.

Responsible Agency: Community Development Department, Finance Department, City Council

Schedule: Continuous

Policy 2

Where appropriate, the City shall consider the job creation aspects of development proposals and may require the preparation of socio-economic and fiscal impact analyses to determine whether and to what extent such development may complement or adversely impact the local economy.

Program 2.A

The City shall provide an outline and description of methodology for the preparation of employment creation and socio-economic impact analyses as they relate to individual projects. Said outline and methodology shall be provided to project proponents, as determined appropriate.

Responsible Agency: Community Development Department, Finance Department, City Council

Schedule: Continuous

Policy 3

Development and redevelopment proposals shall be assessed for their potential to adversely impact the natural environmental and aesthetic values of the City or the quality of the resort and tourism experience.

Program 3.A

The City shall carefully assess each development proposal, whether on raw or previously development lands, to characterize and measure the potential adverse impacts of such development on the City's core natural assets, and to the quality of the resort and tourism experience.

Responsible Agency: Community Development Department, Finance Department, City Council

Schedule: Continuous

Policy 4

Encourage the development of revenue-enhancing commercial businesses that complement the City's resort/tourism base and also consistent with the general service needs of the community.

Policy 5

Encourage the development of resort residential projects and hotel-based tourism businesses, which provide dependable revenue streams while limiting demand for costly community services and facilities.

Policy 6

Continue to actively support the development and/or expansion of higher education facilities, which benefit City residents and businesses, including those which offer undergraduate and graduate level courses, professional enrichment opportunities, certificate programs, and technical training.

Policy 7

Take a proactive and aggressive role in the retention of existing businesses and the recruitment of new businesses that complements the City's core economic assets.

Program 7.A

Continue to maximize the role of the Palm Desert Visitors Center, Business Support Center, Chamber of Commerce, City web site, Coachella Valley Economic Partnership and other mechanisms that promote and enhance the City's business climate.

Responsible Agency: Palm Desert Visitors Center, Redevelopment Agency, Community Affairs Department, Palm Desert Chamber of Commerce, Palm Springs/Desert Resorts Convention and Visitors Bureau, CVEP

Schedule: Ongoing

Policy 8

Continue to encourage and promote special events, activities and uses, which strengthen the City's reputation and attractiveness as a resort and tourist/visitor destination.

Policy 9

Continue to establish and fund programs, which aid existing businesses in revitalization or beautification efforts, to keep them competitive and healthy in the growing economy.

Policy 10

Assure the provision of sufficient utilities, roadway infrastructure, and capital facilities to support existing economic development and attract new resort, commercial, education and R & D industrial businesses to the City.

Program 10.A

All development interests shall be responsible for their fair share of on- and off-site improvements required to support the developed site. Improvements may include, but are not limited to, street construction and signalization, utility extensions, drainage facilities, parks and other facilities.

Responsible Agency: Community Development Department, Public Works Department, Building and Safety, Redevelopment Agency

Schedule: Immediate; Continuous

Program 10.B

The City shall routinely review and revise, as necessary, the allocation of revenues required to mitigate the impacts of growth.

Responsible Agency: Community Development Department, Finance Department, City Council

Schedule: Annually

Program 10.C

Develop and maintain close working relationships with public and quasi-public agencies serving the City to assure the adequate planning, coordination, and construction of utilities and infrastructure.

Responsible Agency: Community Development Department, Coachella Valley Water District, Imperial Irrigation District, The Gas Company, Southern California Edison, Verizon, Time Warner, Waste Management of the Desert

Schedule: Ongoing

Policy 11

Make every effort to expedite the processing of development proposals, which support the economic goals of the community, enhance the community's quality of life, and which involve innovative new projects.

Program 11.A

Without sacrificing the quality of development, streamline the development review process by expediting the processing of applications, design review, and the issuance of building permits for proposed projects which are expected to enhance the local economy.

Responsible Agency: Community Development Department

Schedule: Immediate; Continuous

Policy 12

Evaluate the feasibility of annexing land immediately north of Interstate-10, so as to expand the City's access to I-10, enhance the appearance of this city gateway area, and facilitate the future development of highway-commercial uses.

Program 12.A

Conduct a feasibility study, including a cost/benefit analysis, for the potential annexation of lands north of I-10.

Responsible Agency: Community Development Department, Finance Department

Schedule: 2004-2005

Policy 13

The City Zoning Ordinance and Development Code shall be updated, revised and expanded to assure analysis regimes and standards and guidelines that assure adequate protection of the City's core economic interests and especially the preservation of the natural environment.

Program 13.A

The City shall initiate and complete a comprehensive update, revision and expansion of the Zoning Ordinance and development Code, which shall include development standards and guidelines that protect the core components of the City's economy and support and enhance the natural environment.

Responsible Agency: Community Development Department, Architectural review Committee, Planning Commission, City Council

Schedule: 2003-04

CITY OF PALM DESERT

COMPREHENSIVE GENERAL PLAN

CHAPTER IV

ENVIRONMENTAL RESOURCES

This chapter of the General Plan discusses the environmental resources of the City and surrounding planning area. The elements addressed in this chapter include Biological Resources, Archaeological and Cultural Resources, Water Resources, Air Quality, Open Space and Conservation, and Energy and Mineral Resources. The City of Palm Desert has substantial environmental resources, which contribute to the quality of life for City residents and attract a significant tourist trade. This chapter addresses the importance and need for conservation of these valued resources.

ARCHAEOLOGICAL AND CULTURAL RESOURCES ELEMENT

PURPOSE

Cultural resources are an integral part of the community and provide residents with an important and meaningful sense of history and heritage. The Archaeological and Cultural Resources Element describes the documented pre-history and history of the City of Palm Desert, including its 20th century development. It sets forth goals, policies and programs which preserve the City's cultural heritage and help perpetuate it for future generations.

BACKGROUND

The Archaeological and Cultural Resources Element is directly related to the Land Use, Open Space and Conservation, and Arts and Culture Elements of the General Plan, and may also influence the policies and programs set forth in the Community Design Element. The issues addressed in the Archaeological and Cultural Resources Element are part of those set forth in California Government Code Section 65560(b) and Public Resources Code Section 5076. Furthermore, Section 21083.2(g) of the California Environmental Quality Act (CEQA) empowers the community to require adequate research, documentation and preservation when the potential for significant cultural resources exists.

The City currently reviews development proposals for their potential impacts to archaeologically and historically significant resources and may require additional studies if the potential for damage to resources exists. As future development proposals are received, they will be evaluated, and the need for site-specific cultural resource assessments will be determined. Although Palm Desert is a "new" community, it is part of a region that has seen human occupation for thousands of years. The General Plan study area is also one that has been important in the development of the trans-continental railroad and national highways system, and has important resources documenting this progress.

THE PREHISTORIC PERIOD

The "pre-historic" period refers to a time prior to the arrival of non-native peoples, when Native American society, which was based on traditions resulting from thousands of years of cultural development, was intact and viable. In the Coachella Valley, the prehistoric period is generally divided into the Late Prehistoric Period and the Archaic Period.

The Archaic Period is defined as occurring before AD 1000, prior to the introduction of pottery to the region. Important cultural developments during the Archaic Period include the change from burial practices to cremations around 500 BC and the introduction of the bow and arrow, probably around AD 500. It is also believed that a migration of Takic-speaking peoples, from the Great Basin region of Nevada, Utah and eastern California into southern California, occurred sometime between 1000 BC and AD 500.

The introduction of pottery to the Coachella Valley region by Colorado River cultures is believed to have occurred around AD 1000 and marks the transition between the Archaic and Late Prehistoric Periods. Pottery was an innovation of peoples of the Colorado River, and its distribution across the upper Colorado and Mojave Deserts indicates that there was contact and trade between local tribes and those of the Colorado River.



In the Coachella Valley, the Late Prehistoric Period is currently defined as occurring after AD 1000 until around the late 1700s, when foreign influences brought profound changes to Native American society and ushered in the “historic period.” Archaeological evidence indicates that a large number of settlements and rancherias were established in the Coachella Valley region during the prehistoric period. Such sites included villages, milling sites used on a seasonal basis to process food materials, lithic workshops for making stone tools and weapons, and rock art sites used for artistic and/or religious purposes.

Cahuilla Culture

The most recent identifiable native culture to evolve in the Coachella Valley region is that of the Cahuilla. The Cahuilla were a Takic-speaking people of hunters and gatherers who are generally divided into three groups by anthropologists, according to their geographic setting: the Pass Cahuilla of the San Geronio Pass/Palm Springs area; the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains; and the Desert Cahuilla of the eastern Coachella Valley, as far south as today’s Salton Sea.

The Cahuilla were not identified by a single name that referred to an all-inclusive tribal affiliation. Instead, membership was in terms of lineages or clans. Each lineage had its own food harvesting areas, ceremonial house and chief. However, a number of lineages are known to have cooperated with one another for trade, intermarriage, and ceremonies.

Although early population data are nearly impossible to obtain, the Cahuilla population is estimated to have ranged between 3,600 and 10,000 persons prior to European contact. A large number of Indian villages, occupied by the Cahuilla, were observed in the mid-19th century throughout the Coachella Valley. The desert environment was often harsh, with extreme variations in rainfall, wind and temperature, and occasional flash flooding and faulting activity that altered available water resources. However, the mountains, canyons and desert floor also provided important sources of food and fiber, water and supplies.

The first Cahuilla contact with Europeans is believed to have occurred in the 1770s, when Spaniards crossed through Cahuilla territory in search of new land routes between Mexico and northern California. Over time, relations between the Cahuilla and Europeans become strained due to conflicts over land ownership and exploitation, and religious and cultural practices. In the early 1860s, a smallpox epidemic, to which the Cahuilla had no immunity, decimated the Cahuilla population, which declined to about 2,500 individuals.

Reservations were established beginning in the 1870s and allowed the Cahuilla to preserve their cultural traditions in relative isolation from Anglo-Americans. Today, Native Americans of the Pass and Desert Cahuilla heritage are mostly affiliated with one or more of the Indian reservations in the Coachella Valley, including the Torres Martinez, Augustine, Agua Caliente, Cabazon, and Morongo, most of which are in close proximity to the City of Palm Desert.

Native American Usage of the Planning Area

The first official land survey of the Coachella Valley was conducted by Deputy U.S. Surveyors Henry Washington, James McDonald, and John LaCroze in 1855-1856. The surveyors noted a number of man-made features in the planning area, including the ruins of an Indian village near today's Thousand Palms Oasis. They also identified several trails, one of which crossed the middle portion of the planning area along the Whitewater River, close to the city center of present-day Palm Desert. The trail was part of the Cocomaricopa Trail, which was later "discovered" by Euro-Americans as the Bradshaw Trail.

During the 1855-1856 surveys, no active native or non-native settlements were found in the planning area. The nearest settlement to the planning area was the Palma Seca well, a famed Indian rancheria, which served as an important stop on the Bradshaw Trail during the 1860s and 1870s and is located in the present-day city of Indian Wells.

Archaeological Resources in the Planning Area

Historical maps, previous cultural resource surveys, aerial photographs, topographic maps and other cultural records were consulted to determine the presence of known archaeological resources in the planning area. A total of 138 archaeological sites have been identified and recorded in the planning area, 125 of which are prehistoric (Native American) sites. Several isolated artifacts have also been identified.

The majority of prehistoric sites in the planning area represent Native American habitation activities, including ceramic and lithic scatters, bedrock milling features, rock cairns, trails, roasting pits, and fire hearths. One quarry site has also been identified. Most of these sites are located along the sides of canyons at the edge of the Santa Rosa Mountains, such as Coyote Creek and Deep Canyon, or in the Indio Hills. These areas would have offered Native Americans access to water and other important mountain and desert resources.

Archaeological Resources Sensitivity Assessment

Anthropologists and Cahuilla cultural authorities have identified nine locations within or partially within the planning area that are of potential Native American cultural significance. Six of these areas occur within the Santa Rosa Mountains in the southern portion of the planning area, and three are situated in the Indio Hills in the northern portion. Most of them are associated with canyons, which offered water on at least a seasonal basis. These findings suggest that the various canyons in the Santa Rosa Mountains and Indio Hills, and the alluvial fans at the canyon mouths, should be regarded as highly sensitive for prehistoric archaeological resources. These areas are identified in Exhibits IV-1 and IV-2.

THE HISTORIC PERIOD

Historically significant sites are generally more than forty-five to fifty years of age, but range from the period of the earliest European contact (around the late 1770s in the Coachella Valley) to about the end of World War II. Potentially significant historic sites range from permanent trails and highways to living areas and small-scale remains of single activities.

Historic Settlement in the Coachella Valley

By the late 18th century, Spanish explorers sought to colonize California before other European nations and established religious missions and military strongholds along the California coast. Spanish and Mexican explorers entered the Coachella Valley in search of easily passable supply routes from Mexico to colonies on the northern Monterey Peninsula of California. In 1822, Mexico secured its independence from Spain under the Treaty of Cordova, and Spanish forces were driven out of Mexico and California. In 1823-1825, Jose Romero, Jose Maria Estudillo, and Romualdo Pacheco led an expedition in search of a route to Yuma, Arizona and became the first noted European explorers to travel through the Coachella Valley.

The United States defeated Mexico in 1848 in the Mexican-American War and gained control of California. At the same time, the discovery of gold and the appeal of cattle ranching led to an influx of new settlers to the state. California was admitted to the Union in 1850. The first U.S. Government surveys were conducted in the Coachella Valley in 1855-56 by Henry Washington, John La Croze and James G. McDonald, who observed a number of trails and roads crossing the Valley.

The Bradshaw Trail

The Cocomaricopa Trail passed through the Coachella Valley along the base of the Santa Rosa Mountains, and connected the coastal region of California with the Colorado River. The trail was originally an Indian trade route and was revealed by the Maricopa Indians to the Europeans in 1821. In 1862, the trail was “discovered” by William David Bradshaw as the shortest route between the California coast and gold mines near the Colorado River, and it became known as the Bradshaw Trail. The trail served as the primary thoroughfare for stagecoaches traveling between coastal southern California and the gold fields near present-day Ehrenberg, Arizona. It also became part of the U.S. Mail route between Los Angeles and Santa Fe, New Mexico.

By the late 1876-77, however, the completion of the transcontinental railroad and the depletion of the La Paz gold mines brought an end to the heyday of this historic wagon road. Traffic declined to nearly nothing by 1880, but ranchers and miners continued to use it for local transport. Today, State Highway 111 closely follows the course of the Bradshaw Trail.

Ocean-to-Ocean Highway

In the early twentieth century, with the coming of the automobile age, the role of the Bradshaw Trail was revived in the form of the Ocean-to-Ocean Highway. Although the exact date of construction is unclear, archival records indicate that the road was built in the late 1930s. The federal government granted rights-of-way for the highway in 1938 and designated it U.S. Route 60/70/99. Segments of present-day Varner Road were part of the original Ocean-to-Ocean Highway.

Regional Twentieth Century Development

Non-Indian settlement in the Coachella Valley expanded during the 1870s and 1880s, with the establishment of railroad stations along the Southern Pacific line and the implementation of the Homestead Act and Desert Land Act, which opened public land for claims. With the utilization of underground water sources, farming became the dominant economic activity in the Coachella Valley. The date palm, the region's main agricultural staple, was first introduced around 1900, and by the late 1910s the date palm industry had firmly established itself in the region. Starting in the 1920s, however, a new industry featuring equestrian camps, resort hotels and eventually country clubs began spreading throughout the Valley.

The planning area remained unsettled and devoid of any evidence of land development until the turn of the twentieth century. The only features recorded during that time were the Southern Pacific Railroad, Bradshaw Trail, and another trail near the northern tip of the planning area at the mouth of West Wide Canyon. Several railroad construction workers' camps were present by the early 1900s.

During the 1910s, the County of Riverside improved the Bradshaw Trail into a county trail (the forerunner of today's Highway 111), which further paved the way for settlement and growth in the "cove communities" region of the Coachella Valley. By 1914, a railroad station named Edom, which contained a post office, was established in the planning area. In 1939, the post office was moved to the nearby community of Thousand Palms and renamed for that community, which by that time, had a population of about 20 permanent residents and 15 to 20 winter residents.

The construction of the Colorado River Aqueduct by the Metropolitan Water District, between 1933 and 1939, brought a number of permanent and temporary features to the northernmost portion of the planning area. Among these were roads, power transmission lines, waterlines, and construction camps. The remains of one of eight construction camps, Camp Thousand Palms, have been discovered at the mouth of East Deception Canyon in the foothills of the Little San Bernardino Mountains.

By 1941, several rural settlements had been established in the area between the Southern Pacific Railroad (now Union Pacific) and the Indio Hills. Among these were Thousand Palms, Edom, Myoma, the Ferguson Ranch, the Thousand Palms Oasis, the Bar Bell Ranch, the Chuckwalla

Ranch, and the Hunter Palms Ranch. The small community of Palm Village was established south of the railroad, on the north side of Highway 111. General George S. Patton selected Palm Village as the site for his motor pool during World War II, as it was in close proximity to the Desert Training Center used for military training during the war.

The Founding of the City of Palm Desert

The City of Palm Desert was founded on the south side of Highway 111 in 1945-1946. It was founded by four brothers, Randall, Carl, Clifford, and Phil Henderson, who hoped to follow in the footsteps of neighboring communities, such as La Quinta, Rancho Mirage and Palm Springs, and establish a winter resort for Hollywood celebrities. The Henderson brothers were involved in early development, and organized the Palm Desert Corporation to promote their new desert town, and by 1947, the population was sufficient to establish a post office. Randall donated land for the community's first library on Portola Avenue. Phil and Clifford donated the land for the first fire station on El Paseo, which currently (2003) serves as the home of the Historical Society of Palm Desert. Clifford was also the developer of the Shadow Mountain Club on San Luis Rey, which attracted movie stars and tennis pros.

In 1951, Palm Village and Palm Desert merged into a single community, forming the present urban core of the city. Around that time, the community of Cahuilla Hills emerged on the west side of Highway 74, just southwest of Palm Desert. In addition, several tracts of land south of the railroad and in the area between the Little San Bernardino Mountains and the Indio Hills were settled. After four unsuccessful attempts, the City of Palm Desert was incorporated in 1973 and became the 17th incorporated city in Riverside County.

Historic Sites in the Planning Area

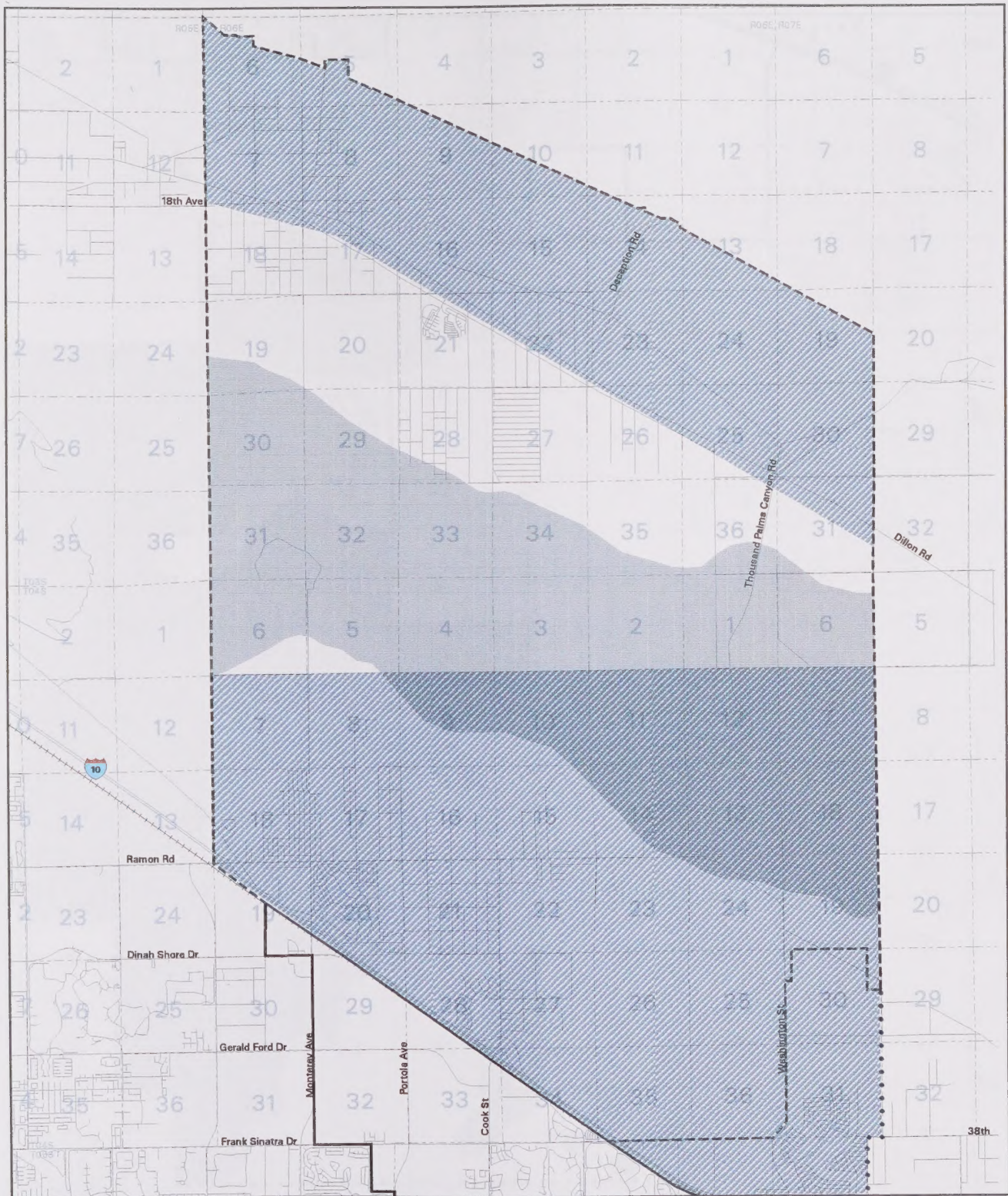
Analysis of previous cultural resources studies indicates that, of the 138 archaeological sites recorded in the planning area, 13 are historic-era sites. These are primarily comprised of trash scatters, although structural foundations, a road, and a water conveyance system have also been recorded. Among the historic sites are the Southern Pacific Railroad and other nearby features associated with the railroad. Several sites associated with the construction of the Colorado River Aqueduct in the 1930s have been recorded in the vicinity of the Little San Bernardino Mountains.

From 1981 to 1983, the Riverside County Historical Commission coordinated a countywide historical resources reconnaissance, which led to the recordation of 30 historic sites in the planning area. These include a well site that dates back to 1912, the Cavanagh Adobe building that was built in the 1920s, and single-family residences constructed in the 1930s and 1940s. Most of these sites are located near the city center of Palm Desert, although several are near the community of Thousand Palms.

Although the City of Palm Desert does not maintain a list of officially recognized or designated local historical landmarks, the Historical Society of Palm Desert has compiled a list of 21 sites of local historical significance. The list includes sites ranging from early homesteads to mid-twentieth century urban development. They are concentrated in the central urban core of the City, and only a few are located in outlying areas. The majority of the sites were recorded on the California Historical Resource Information System during the countywide survey in the 1980s.

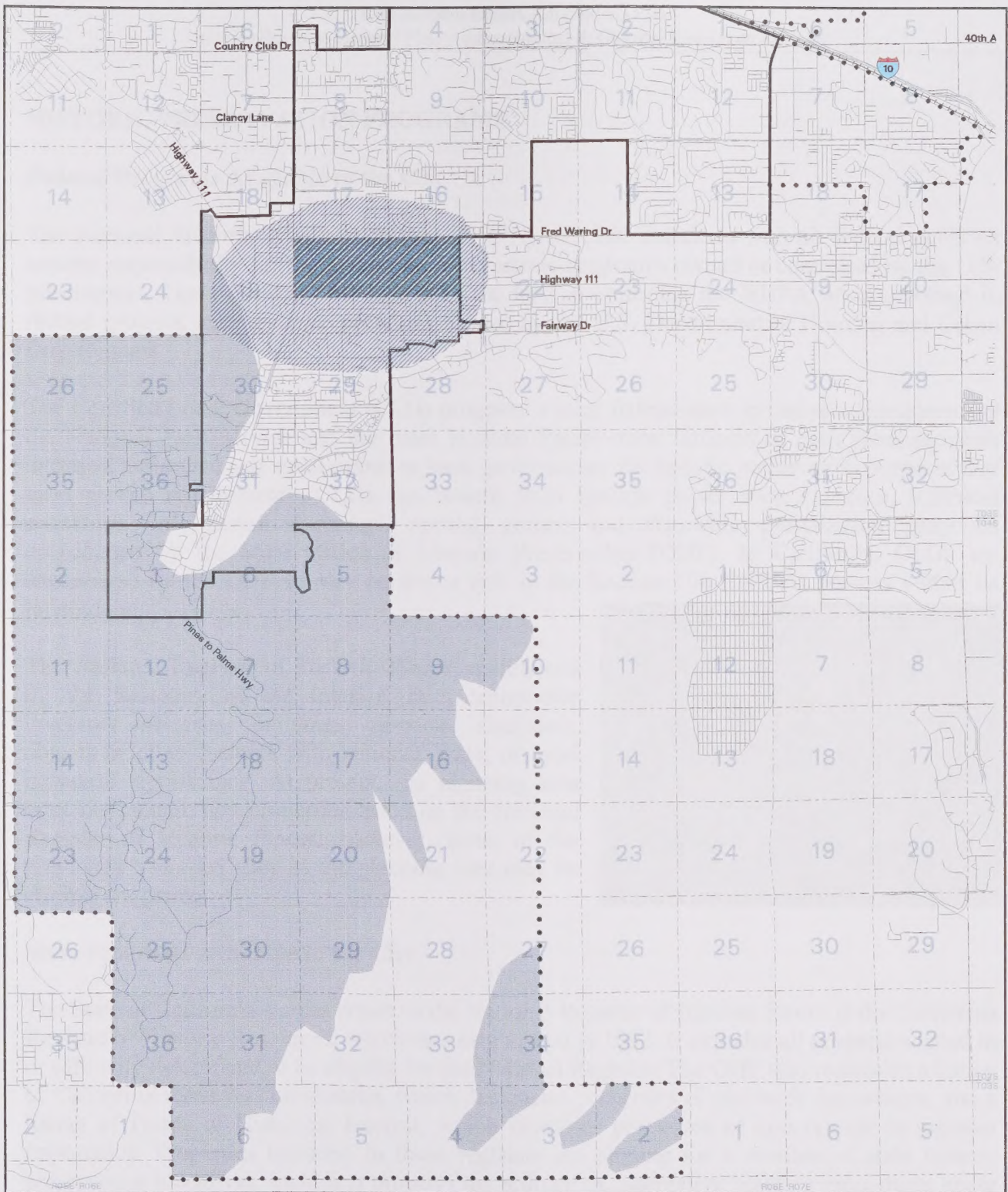
Historic Resources Sensitivity Assessment

Historic structures dating from the late 1940s and early 1950s are concentrated around the urban core of the City, and structures of similar vintage are likely to be found in outlying communities, such as Thousand Palms and Cahuilla Hills. For historic structures, or historic-period archaeological remains dating before 1940, the most sensitive areas in the planning area are along the Colorado River Aqueduct, between the Indio Hills and the Southern Pacific Railroad, and around the original community of Palm Village north of Highway 111. Nonetheless, the possibility of finding historic resources in other areas cannot be ruled out. Potentially sensitive areas are identified in Exhibits IV-1 and Exhibit IV-2.



**Palm Desert General Plan
Cultural Resources Sensitivity Assessment
North Planning Area**

**Exhibit
IV-1**



Palm Desert (South)



Scale
1:63,360

0 0.8 1.6 2.4
Miles

Map Version No.: 1
Map Prepared On: August 07, 2001
Map Prepared By: Aerial Information Systems

- Roads
- Township/Range Sections
- ++++ Railroads
- City Limits
- General Plan Planning Area
- • • City Sphere of Influence

Legend

- High sensitivity for prehistoric archaeological resources
- Relatively high sensitivity for historic structures or archaeological resources from pre-1940-era
- Highest concentration of historic structures from 1940s-1950s



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Palm Desert General Plan
Cultural Resources Sensitivity Assessment
South Planning Area

Exhibit
IV-2

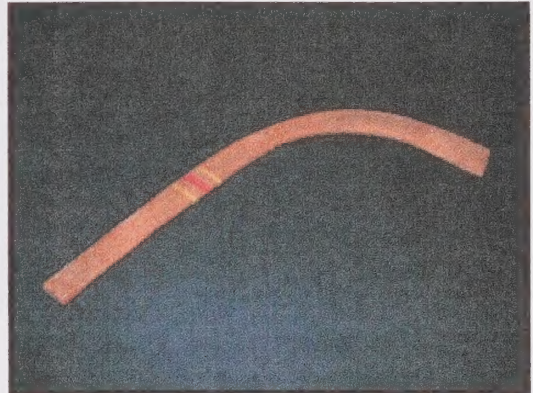
HISTORIC PRESERVATION PROGRAMS

Federal Programs Available to the City

The National Historic Preservation Act (NHPA) of 1966 mandates that all federal agencies assume responsibility for the preservation of historic properties owned or controlled by the U.S. government. Local governments may take the lead in enforcing the NHPA when involved in federal projects, such as some programs funded by the U.S. Department of Housing and Urban Development.

The Certified Local Government (CLG) program, a joint federal-state initiative administered by the National Park Service and the State Historic Preservation Officers of each state, provides technical assistance and small grants to local governments for historic preservation purposes that meet certain requirements. CLGs can benefit from historic preservation expertise, technical assistance, information exchange, special grants, and statewide preservation programs coordinated by the State Office of Historic Preservation (OHP). In California, CLGs are encouraged by the OHP to play an active role in the Section 106 (NHPA) process within its jurisdiction.

The National Register of Historic Places, maintained by the Secretary of the Interior, is a nationwide inventory of sites, buildings, districts, structures, objects or other features with national, state, or local historical significance. At present, the planning area does not contain any properties listed on the National Register of Historic Places; however, some of the previously recorded sites in the planning area may be eligible for listing.



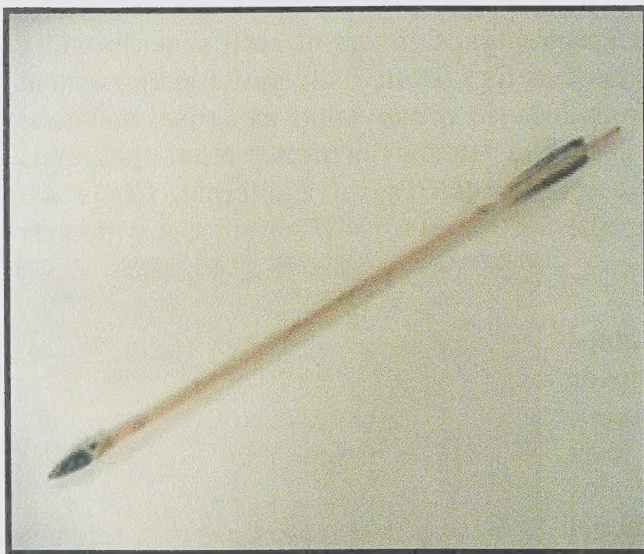
State Programs Available to the City

The State of California's counterpart to the National Register of Historic Places is the California Register of Historic Resources, which was established in 1992. It includes all properties listed in or officially determined to be eligible for the National Register. The OHP also maintains a listing of California Historical Landmarks, which designates properties of statewide importance, and a listing of Points of Historical Interest, which identifies properties of countywide or regional importance. Properties included in these registers are eligible for a number of state historic preservation incentives, including property tax reductions, alternative building regulations under the State Historic Building Code, benefits provided by the California Heritage Fund, special historic preservation bond measures, and seismic retrofit tax credits. Currently, none of the properties listed in these registers is located within the planning area.

Programs Administered by the City

A four-member Historical Commission was appointed by the City of Palm Desert in 1978 and was responsible for coordinating and preserving memorabilia associated with the founding and development of the City. This led to the incorporation of the Historical Society of Palm Desert in March 1979, which has played an important role in the City's historic preservation efforts since then.

Today, the Historical Society maintains numerous archival records pertaining to the City's development, is staffed by approximately 38 volunteers, and is housed in the City's historic fire station at 72-861 El Paseo.



In 1984 the Palm Desert City Council formally adopted an historic preservation ordinance (Ordinance 401), that defines the terms "historic site" and "historic district" and provides for a seven-member Historic Site Preservation Board to identify and protect properties meeting these definitions and criteria. The Board also has the authority to initiate the designation of historic sites and districts, review projects that may affect such sites, and issue temporary stays on demolition or exterior alterations of potentially historic structures. Through the Historical Society and other vehicles, the City shall be pro active in efforts to protect important historic resources

FUTURE DIRECTIONS

According to Public Resources Code Section 5020.1, "historical resources" include but are not limited to an object, building site, area, place, record, or manuscript which is historically or archaeologically significant. This definition also applies to architectural, engineering scientific, economic agricultural, educational, social, political, military, or cultural annals of California.

The California Environmental Quality Act identifies the manner in which the City must review and address issues related to archaeological and historic resources. The CEQA Guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources. The relevant criteria for determining significance are briefly described below.

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

4. Has yielded, or may be likely to yield, information important in prehistory or history.

As the lead agency, the City of Palm Desert is obligated to assure that every reasonable effort is made to locate, identify, and evaluate archaeological, historical and cultural sites within its jurisdiction. The City must determine which development activities have the potential to adversely impact known or suspected sites of significance. Projects involving a federal agency, federal funding or other federal assistance must conform to Section 106 of the National Historic Preservation Act (NHPA) of 1966.

Cultural resources management need not be a roadblock to future development. If carried out properly and creatively, the preservation of cultural resources actually enhances the value of a place, and the City benefits from the wise management of its historical heritage. As the community continues to develop, opportunities for documenting and preserving archaeological and historic sites and artifacts will decrease. The City should encourage the research and registration of appropriate sites and structures within its jurisdiction, and rededicate itself to passing on its important traditions and heritage to future generations.

GOALS, POLICIES AND PROGRAMS

Goal

Documentation, maintenance, preservation and enhancement of archaeological and historic sites, artifacts, traditions and other elements of the City's cultural heritage.

Policy 1

The City shall exercise its responsibility to identify, document and evaluate archaeological, historical and cultural resources that may be affected by proposed development projects and other landscape-altering activities.

Program 1.A

Development or land use proposals, which have the potential to disturb or destroy sensitive cultural resources, shall be evaluated by a qualified professional and, if necessary, comprehensive Phase I studies and appropriate mitigation measures shall be incorporated into project approvals.

Responsible Agency: Community Development Department, Native American Tribes

Schedule: Immediate; continuous

Program 1.B

Establish a transmittal system with the Eastern Information Center (EIC) in which the City may send a location map to the EIC for a transmittal-level records search when a development proposal is in its initial review phase. The transmittal shall identify the presence or absence of known cultural resources and/or previously performed studies in and near the project area. The EIC shall also offer recommendations regarding the need for additional studies, where necessary.

Responsible Agency: Community Development Department, Eastern Information Center, Native American Tribes

Schedule: Immediate, ongoing

Policy 2

The City shall expand and enhance its historic preservation efforts.

Program 2.A

Prepare a historic preservation plan, which outlines the goals and objectives of the City's preservation programs and serves as an official historic context statement for the evaluation of cultural resources within the City boundaries.

Responsible Agency: Community Development Department

Schedule: 2004-2005

Program 2.B

The City shall consider participating in the Certified Local Government program so that it may benefit from historic preservation expertise, technical assistance, special grants, information exchange, and statewide preservation programs coordinated by the State Office of Historic Preservation.

Responsible Agency: Community Development Department, City Council, Native American Tribes

Schedule: Ongoing

Program 2.C

Historic preservation concerns shall be incorporated into the City zoning ordinance.

Responsible Agency: Community Development Department

Schedule: 2005-2006

Policy 3

Establish and maintain an inventory of archaeological and historical resources within the City, including those identified by the Eastern Information Center (EIC) at the University of California, Riverside and in focused cultural resources studies.

Program 3.A

Expediently conduct a citywide cultural resources survey to inventory all cultural resources within the City's jurisdiction.

Responsible Agency: Community Development Department, with the assistance of the Palm Desert Historical Society

Schedule: 2004-2005

Policy 4

Sensitive archaeological and historic resources shall be protected from vandalism and illegal collection, to the greatest extent possible.

Program 4.A

Mapping and similar information, which identifies specific locations of sensitive cultural resources, shall be maintained in a confidential manner, and access to such information shall be provided only to those with appropriate professional or organizational ties.

Responsible Agency: Community Development Department

Schedule: Immediate; continuous

Program 4.B

In the course of reviewing development proposals and cultural surveys that identify sensitive resources, the City shall, where appropriate, encourage in-place preservation or the recovery and preservation of materials for later study and/or display.

Responsible Agency: Community Development Department, Native American Tribes

Schedule: Immediate; continuous

Policy 5

Encourage public participation in and appreciation of the City's cultural heritage.

Program 5.A

Encourage property owners and other citizens to nominate qualified properties to the City's inventory system and/or any federal and state registers.

Responsible Agency: Community Development Department, Palm Desert Historical Society, Native American Tribes

Schedule: Ongoing

Program 5.B

Implement a systematic program to enhance public awareness of the City's heritage, generate broad support for its preservation, and enhance community pride.

Responsible Agency: Community Development Department, City Council, Palm Desert Historical Society, Native American Tribes

Schedule: 2004-2005, continuous

Program 5.C

Support the efforts of the Palm Desert Historical Society and other local cultural associations to acquire historical materials and artifacts, and to educate the public about the City's and region's cultural heritage.

Responsible Agency: Community Development Department, City Council, Palm Desert Historical Society, Native American Tribes

Schedule: Continuous

Policy 6

Support the listing of eligible structures or sites as potential historic landmarks and their inclusion in the National Register of Historic Places.

Program 6.A

Consult and cooperate with the Palm Desert Historical Society and other appropriate cultural organizations to periodically identify and prioritize sites for possible application for status as a historic landmark or inclusion in the National Register of Historic Places.

Responsible Agency: Community Development Department, Palm Desert Historical Society, Native American Tribes

Schedule: Periodically

Program 6.B

Develop procedures for the designation of local landmarks and historic districts.

Responsible Agency: Community Development Department, Palm Desert Historical Society, Native American Tribes

Schedule: 2004-2005

Policy 7

The City shall consider offering economic or other incentives, such as direct subsidies or application/permitting fee reductions or waivers, to property owners to encourage the maintenance and enhancement of significant cultural buildings and sites.

Program 7.A

Develop an application process for City-sponsored incentives to maintain and enhance significant buildings and sites, and provide property owners with information and guidance on eligibility requirements.

Responsible Agency: Community Development Department

Schedule: Ongoing

BIOLOGICAL RESOURCES ELEMENT

PURPOSE

The purpose of the Biological Resources Element is to identify the variety of biological resources located within the General Plan planning area and the vicinity, to recognize them as valued community resources, and to provide guidance and direction for their protection and preservation. As the City continues to grow and develop, careful consideration of important biological resources becomes imperative to ensuring their long-term health and viability. This Element describes the natural environment and habitats within Palm Desert and the surrounding area, and identifies the important and valuable biological resources.

This Element also provides a basis for understanding biological resource issues, and cites other sources of information that promote protection of biological resources by regulating land use and development, and mechanisms for long-term conservation. The Element is also intended to provide the basis for understanding biological resource issues and to guide decision makers in regulating land use and development. The goals, policies and programs set forth in this Element are meant to ensure the long-term preservation of biological resources for the benefit of the entire community. This Element's inclusion in the General Plan shows the City's commitment to maintaining the integrity of the natural environment, while fulfilling social, economic and other needs of existing and future generations.

BACKGROUND

The Biological Resources Element serves as a major policy input to the Land Use Element and the Open Space and Conservation Element. It is also related to Community Design, Arts and Culture, and Parks and Recreation Elements, suggesting the community's dedication to its biological resources. In this respect, the Biological Resources Element may have an effect on community design development and contribute to the effective implementation of conservation strategies. Finally, in recent years it has become more apparent that the region's biological resources constitute an important economic resource that enhances the local quality of life and desirability of the region. Therefore, this Element also has an important relationship to the Economic and Fiscal Element of the General Plan.

California Government Code Section 65302(d) requires that the General Plan include an element that addresses the conservation and preservation of wildlife resources. It also requires that the element and supporting documentation provide inventories of natural vegetation, fish and wildlife, including rare and endangered species and their habitat. Consistent with these mandates, this Element includes goals and policies, as well as plans and resource maps showing areas important to the preservation of plant and animal life, including habitat for fish, birds and other wildlife, and areas important for ecological and scientific study. Programs, which act to assure the preservation of the community's biological resources, are also included.

In addition there are many regulations that govern the health and well being of biological resources, including habitat and wildlife species. The Federal and California Endangered Species Act is one of the most effective laws for protecting species and their habitat, identifying endangered species and isolated populations, and preserving the region's biodiversity for current and future generations. In addition to the Endangered Species Act, California has several additional laws and regulations that directly and indirectly protect plant and wildlife species, such as state enforcement of the federal Clean Water Act, the California Fish and Game Code and the Natural Community Conservation Planning Act. These regulatory tools are further discussed below.

REGIONAL SETTING AND THE PHYSICAL ENVIRONMENT

The regional setting and physical and environmental conditions of the Coachella Valley have a direct affect on the types of habitat and biological resources that have adapted to these unique and sometimes extreme conditions. In particular, geographic location, soils, climate and topography are the most influential factors shaping the regional environment. The following discussion provides a brief description of these conditions in the Coachella Valley and the Palm Desert planning area, and how they form the basis for habitat and biological resources.

Desert Biome

Many places on earth share similar climatic, topographic and soil conditions, and therefore form roughly comparable communities. These broad types of biological communities are called biomes. Desert biomes are characterized by low moisture levels and precipitation that is both infrequent and unpredictable from year to year. With little moisture to absorb and store heat, daily and seasonal temperatures generally fluctuate widely. Most deserts around the world are gravelly or rocky scrubland, where 5 to 10 cm of annual precipitation supports a sparse, but species-rich community dominated by shrubs or small trees. However, in years when rains are adequate, a wide variety of annual or ephemeral plants will blanket the desert floor.

Plants and animals in this climate survive by utilizing a variety of structural and behavioral adaptations to conserve water and endure the heat. Plants have adapted mechanisms in their leaf structure, such as tissues that can store water and thick epidermal layers, which help reduce water loss from evaporation. Many desert plants also produce leaves seasonally, and have spines and thorns to discourage predators while also providing shade. Animals escape the main onslaught of daytime heat by hiding in burrows or shelters, and emerging only at night to hunt for food and water. Some animals can obtain most of the moisture they need from the other animals, insects, grains and seeds they eat, and they have adaptations that allow them to eliminate body wastes without losing moisture.

Climate in the Coachella Valley

Local climatic conditions are largely influenced by the geographic location (latitude) of the region. Other influences on climate include topographical features and the presence of the ocean or other large bodies of water. The Coachella Valley region's climatic conditions are greatly influenced by the Santa Rosas, San Jacinto and San Bernardino Mountain ranges, which effectively isolate the valley from much of the cooler and wetter maritime conditions that occur to the west.

The result is a subtropical desert environment characterized by low rainfall, low relative humidity, and high levels of direct sunshine, with very hot summers and mild winters. Summer daytime temperatures commonly exceed 100°F and occasionally reach more than 120°F, but drop to about 75°F at night. In winter, the daily temperature range is from 80°F to 30°F. The surrounding mountain slopes are typically cooler with an approximate 5°F decrease in temperature for every 1,000 foot increase in elevation and a commensurate increase in rainfall.

Mean annual rainfall on the valley floor is low, averaging between four (4) and six (6) inches, and about fifteen (15) inches in the nearby mountains on the southern and western end of the valley. Winter months generally receive the most rainfall, but infrequent and occasionally intense thunderstorms may occur in late summer and early fall. However, most of the precipitation generated by these storms falls on surrounding mountain slopes, leaving the desert floor dry throughout the year.

Wind also has a significant impact on the climate of the Coachella Valley. As the desert floor heats up and warm air rises, cool, ocean-modified air masses from the west are drawn into the valley and are funneled and concentrated through the narrow San Geronio Pass. This Venturi effect generates strong winds, which pass over the most erosive portions of the valley floor, transporting large quantities of sand and dust throughout the region. While this natural sand migration and transport process can pose a significant risk to health and property, it is also responsible for creating desert sand dunes, which are an important habitat for unique native desert plants and wildlife.

The Coachella Valley is located in one of the hottest and driest parts of the country, making it a harsh and sometimes inhospitable place to live. Nevertheless, the Coachella Valley desert comprises one of the most biologically unique and diverse regions in the country. While vegetation on the desert floor is sparse and limited by heat and aridity, the climate becomes milder away from the desert floor, as elevation increases.

These alluvial fans, hillsides and mountainous areas support more vegetation, including as many as nine species of cacti, a variety of woody plants such as palo verde and smoke tree and many herbaceous plants. In addition, they also include numerous canyons and ravines, which collect snowmelt and runoff from the surrounding mountains. These niches in the mountainside support native fan palm communities and a wide variety of other plants and animals.

Topographic Effects on Local Habitats

The natural features of the Coachella Valley include high mountain ranges, hillsides and uplands, alluvial plains and the gently sloping valley floor. These topographic features are primarily a result of movement occurring along the San Andreas, San Jacinto and other regional faults that traverse the area. These faults have uplifted and subsided the ground to form contrasting features, while weathering, erosion and other secondary geological processes have sculpted and shaped the mountains into a series of canyons and alluvial fans that extend onto and fill the valley floor. The result is a northwest-southeast trending alluvium-filled basin that is surrounded by mountainous terrain. Elevations in the valley range from about 228 feet below sea level at the

Salton Sea to the peaks of Mt. San Jacinto and Mt. San Gorgonio, more than two miles above sea level. This combination of a fault-extended valley basin and surrounding elevated terrain has created a number of complex and unique habitats, and habitat transition zones, which make the region a rich resource area.

COACHELLA VALLEY DESERT HABITATS AND NATURAL COMMUNITIES

Habitat describes the place or set of environmental conditions in which plants and animals naturally live and grow. Habitats are more specific descriptions of locations within a biome or region, which have a distinct assortment of species. Temperature and precipitation are primary factors in determining locations of different habitats. However, in the Coachella Valley and surrounding areas, desert habitats are generally distinguished by physical differences in slope, soil substrate, solar and wind exposure, and water supply.

Biological resources are found in and are a part of a habitat that is an ecological system, network or web of interrelationships between living things and their physical environment. The value and diversity of habitats are determined by climate, varied terrain, adequate space, a dependable supply of food and water, soils for healthy plant growth, and shelter and nesting sites. Many species of animals may live across and take advantage of different habitats to meet all their needs, while others are limited to areas meeting very narrow requirements. The planning area supports a wide variety of plant species, which provide differing habitats for a wide range of birds, animals and insects.

The Valley Floor: Dunes and Sand Fields

The valley floor habitat refers to open and gently sloping land located within the central portion of the Coachella Valley and Palm Desert planning area. It is characterized by relatively flat and low-lying terrain, with regions of shifting and blowing sands that generally support only sparse vegetation. Within the planning area this habitat can be further divided into three sub-communities, active sand dunes, active sand fields, and stabilized and partially stabilized desert sand fields.

Active Sand Dunes

Active sand dunes are located in exposed areas on the valley floor where high wind conditions convey sand and persistently shift the sand dunes, allowing for little or no vegetation to be supported there. "Active" refers to the fact that windbreaks have not impaired the aeolian (wind-borne) processes that contribute to sand transport, accumulation and depletion in the sand fields. Because the dunes are continually shifting and accumulating sand, perennial plant cover is very low, and much of the surface is barren for most of the year.

However, in years of high rainfall, the dunes are covered with native annual plants, most visibly sand verbena and dune primrose. The principal active desert dunes community in the planning area consists of the large deposits of windblown sand in the Coachella Valley Preserve north of Interstate-10. The most common plant community found in the active sand dune and active sand fields (discussed below) is the Sonoran Desert creosote bush scrub, which includes creosote bush, burro bush, brittlebush and desert Brickellia.

Active Sand Fields

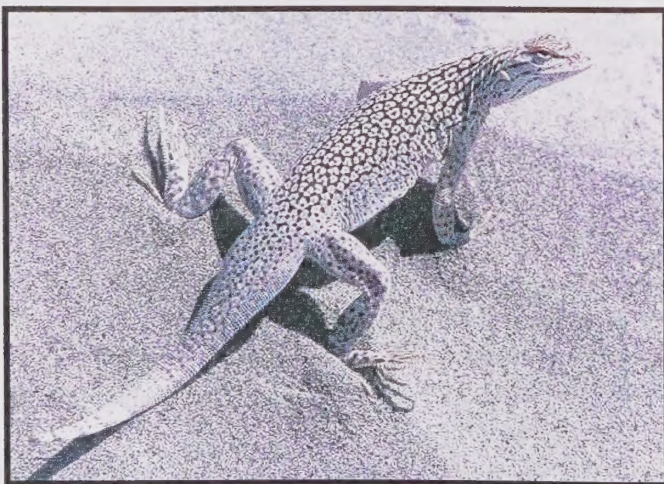
Active desert sand fields are also located within the Coachella Valley Preserve, adjacent to the dunes. While not in dune formation, sand within these fields is actively being deposited and depleted to form sheets of desert sand. Active desert sand fields are also generally unable to support extensive vegetation due to the active aeolian processes. Sand may also be piled up against creosote bush and other perennials creating hummocks or mounds that can support other plants and wildlife.

Stabilized and Partially Stabilized Sand Fields

Large portions of the planning area on the valley floor were originally comprised of active sand dunes and sand fields. However, a variety of changing circumstances, including the construction of the Union Pacific Railroad lines, US Interstate-10 and associated windbreaks, upwind development and the construction of roads have cut off many of these areas from fresh sources of sand. The result is stabilized or partially stabilized sand fields, which occur from just north of the Whitewater River to areas north of Interstate-10.

Stabilized and partially stabilized sand fields and dunes are located in more sheltered areas where water resides below the surface. These sand dunes can support varying amounts of vegetation, which consists primarily of scattered low-growing annuals and perennial grasses and shrubs. Stabilized and partially stabilized sand fields are areas on the valley floor with an accumulation of desert sand that is not in dune formation, where important physical processes are interrupted by barriers such as roads, buildings and landscaping. In these areas vegetation grows more readily and consists primarily of scattered herbs and shrubs. As in active sand dune areas, the most visible and abundant type of vegetation within this valley floor community is the creosote bush scrub. However, during periods of high precipitation, the valley floor becomes alive with vegetation, which lies dormant through the majority of the year.

Coachella Valley fringe-toed lizard



Most undeveloped land on the valley floor has been largely fragmented by development and heavily disturbed by the close proximity to roads. As a result many of the species that are endemic to the valley floor's natural communities have declined significantly. Furthermore, the state and federal governments have listed a number of plant and wildlife species as threatened or endangered, including the Coachella Valley fringe-toed lizard and the Coachella Valley milk-vetch. Others are in jeopardy of becoming threatened or endangered if their numbers and remaining habitat continue to shrink.

Alluvial Plain

Alluvial plain habitat is comprised of flood-formed fans that extend out toward the valley from the mouth of canyons emerging from the surrounding mountains. The uneven terrain of deposited rocks and sand are the accumulated sediments of numerous, large floods that have been shaping these elevated flood plains for thousands of years. Smaller, more recent floods continue to shape and alter the landscape, but their effect is generally limited to sandy washes passing through the plain. Farther down the fan, the plain becomes smoother with a sandier substrate.

In the planning area, these alluvial habitats are formed by a variety of mountain drainages from large and small canyons including Dead Indian Canyon and Deep Canyon draining the Santa Rosas Mountains, and East and West Wide Canyon and East Deception Canyon in the northern planning area draining the Little San Bernardino Mountains. The habitat and communities found on these plains transition and change with increasing distance from canyon mouths, as the substrate is slowly altered from rocky deposits to sandy ones.

Sonoran mixed woody and succulent scrub is the dominant plant community of the alluvial plain habitat. This community occurs along the lower slopes of the Santa Rosa and Little San Bernardino Mountains and is widespread, forming the north and south edges of the Coachella Valley. Sonoran mixed woody and succulent scrub is a variant of the creosote scrub community, and is very typical of the Colorado Desert. It includes creosote bush and a variety of woody and herbaceous plants, including indigo bush, catclaw acacia, desert lavender, rock daisy, and palo verde. The approximate 93 annuals that are found on the alluvial plains and fans make up more than half of the alluvial slopes flora. Several species of cacti are also present, and include beavertail, barrel cactus, fishhook cactus, hedgehog cactus and a variety of cholla. Sensitive species known from this community include California ditaxis and glandular ditaxis.

Sandy Washes

Desert washes form a distinct habitat, which connects the mountains and the valley floor. Washes emerge from canyon mouths as high-banked watercourses that cut through the alluvial plain. As a wash descends the plain, it broadens and the watercourse branches out. Farther from the canyons, washes become broader, shallower and less defined, so that the physical differences between the washes and the alluvial plain are diminished.

Sandy washes are often used as travel corridors by wildlife that utilize both the wash and the alluvial plain habitats. They also contain distinct vegetation that is adapted to infrequent flooding. The most notable species include smoketree and palo verde. Other common shrubs and sub-shrubs include chuperosa, cheesebush, sweetbush, desert lavender, dyeweed, sandpaper plant and bladderpod. Birds are more abundant in the desert washes than in the surrounding rocky hillsides or creosote bush scrub flats. Typical species include verdin, phainopepla and black-tailed gnatcatcher.

Few good representations of sandy desert washes remain in the central Coachella Valley. The largest desert wash in the planning area is the Deep Canyon Wash, which drains large areas of the Santa Rosa Mountains. This wash has been preserve for ecological studies and therefore harbors an excellent variety of plants and wildlife. Other relatively good examples of sandy

desert washes are found within the city at the Living Desert. In the northern planning area, the Coachella Valley Preserve and other sandy washes on the south slope of the Indio Hills are also important examples that also serve as sand sources for the Coachella Preserve dunes system.

Desert Fan Palm Oasis Woodland

The desert fan palm oasis woodland is a rare plant community that is one of the most unusual biological resources located within the Coachella Valley. These lush desert oases are found within canyons and along the San Andreas Fault Zone, where water occurs naturally. They are generally characterized by open to dense groves of native desert fan palms (*Washingtonia filifera*), which are the most massive native palm in North America, growing to more than 20 meters. Native desert fan palms are found from the Baja Peninsula to Death Valley National Monument, with approximately 25,000 occurring in the wild. Because of their uniqueness, desert fan palm oases have been given special status by the State as one with the highest inventory priority. Examples of this plant community in the planning area are located in the Coachella Valley Preserve System along the San Andreas Fault and within canyons in the Santa Rosa Mountains, including Dead Indian and Deep Canyons.



Least Bell's vireo



Black-tailed gnatcatcher

A variety of wildlife species are also associated with the desert fan palm community, including the southern yellow bat, common kingsnake, desert slender salamander, California treefrog, hooded oriole, Cooper's hawk, golden eagle, prairie falcon, Least Bell's vireo, common flicker, carpenter bee and the giant palm boring beetle.

The Peninsular bighorn is one of the most important animals supported by this habitat. They often frequent the oases among the Santa Rosa Mountains during the hot season to take advantage of the water sources that support the woodland.

Rocky Slopes Habitat

The Santa Rosa and Little San Bernardino Mountains that extend from the edge of the alluvial plain comprise the rocky slopes habitat occurring within and near the planning area. This habitat reaches an elevation of about 2,500 feet, and is characterized by continuous rock that is either weathered and

fractured bedrock, or broken and displaced into loose debris of descending sand and pebbles and stone. Because of the steep slopes and extensive rock surfaces on the lower slopes of this habitat, they appear to support little to no vegetation.

However, the rocky slopes habitat supports up to 102 perennials and 115 annual species. Plant density and size increase with elevation and associated increases in annual rainfall. The Mojave mixed woody scrub community dominates the hillsides of the Little San Bernardino Mountains in the northern General Plan study area. Plants of the rocky slopes habitat include creosote bush, brittlebush, burrobush and agave. Ocotillo, spike moss, Parry's cloak fern, arrowleaf, pigmy cedar, bushy cryptantha, bedstraw, rush pea and crossosoma.

The rocky hillsides of the planning area mountains provide habitat for a different variety of plants and animals from those on the valley floor. Connectivity with the vast areas of wildlands in the Santa Rosa and Little San Bernardino Mountains allows for the presence of wide-ranging animals, including bighorn sheep, as well as predators such as prairie falcon, golden eagle, bobcat and mountain lion.



SENSITIVE, RARE AND ENDANGERED SPECIES

Desert Pocket Mouse

The Palm Desert planning area contains a wide range of significant biological resources, many of which are species of plants and animals that are highly specialized and endemic to the Coachella Valley. Due to the loss of viable habitat some of these species have been listed as threatened or endangered by the federal and state governments.



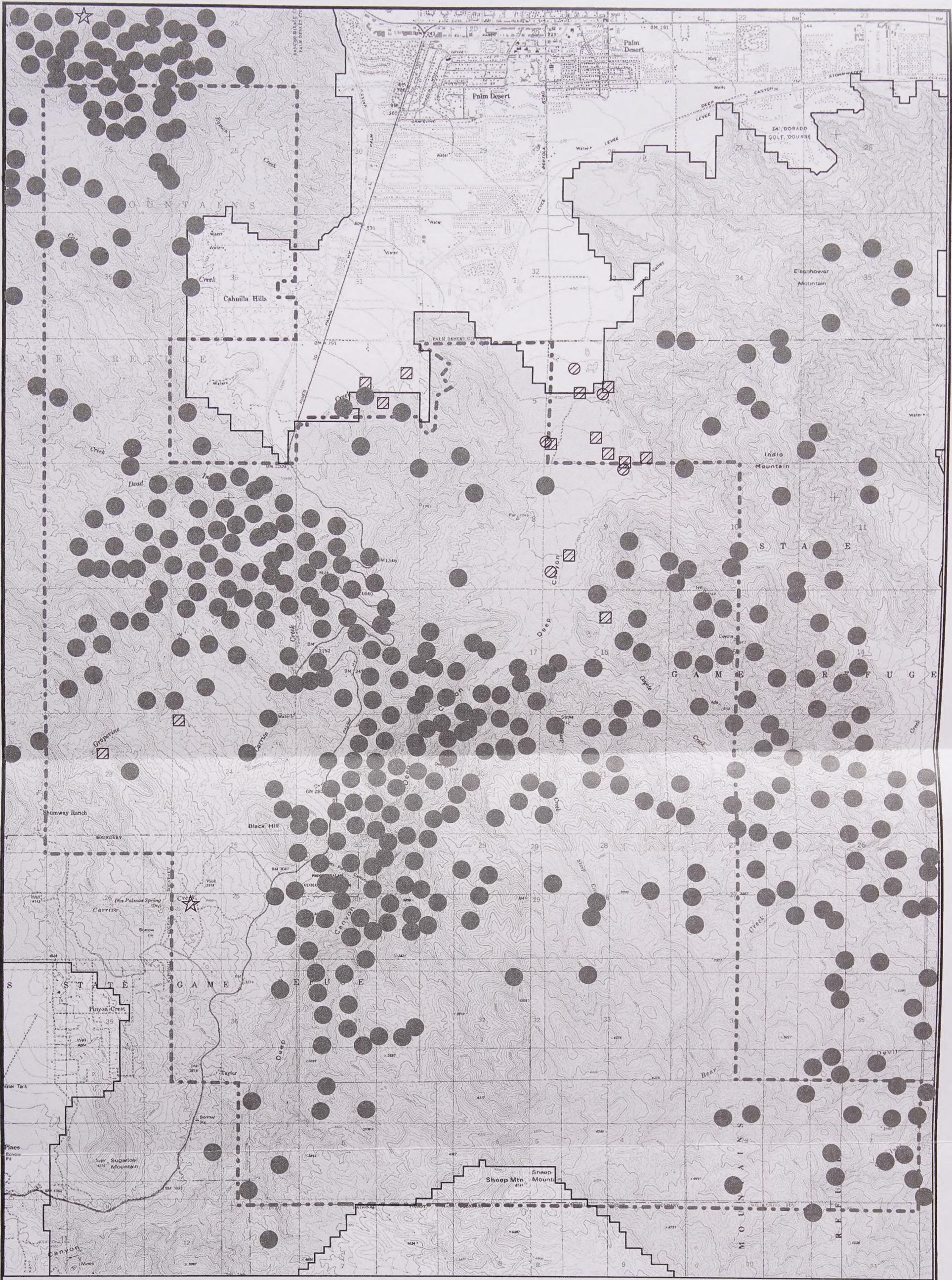
Burrowing owl

"Sensitive" species are those that are naturally rare or that have been locally depleted and put at risk by human activities. While perpetuation for sensitive species does not appear to be significantly threatened, they are considered vulnerable and are often candidates for future listing. Tables IV-1 through IV-4 list the listed or sensitive species within the planning area, and the Biological Resources Maps identify areas where these species are known or likely to occur.

"Endangered" species are those with such limited numbers that they are considered in imminent danger of extinction, while "threatened" species are those that are likely to become endangered, particularly on a local scale, within the foreseeable future.



Desert Tortoise



 Sphere of Influence South

 SW Willow Flycatcher

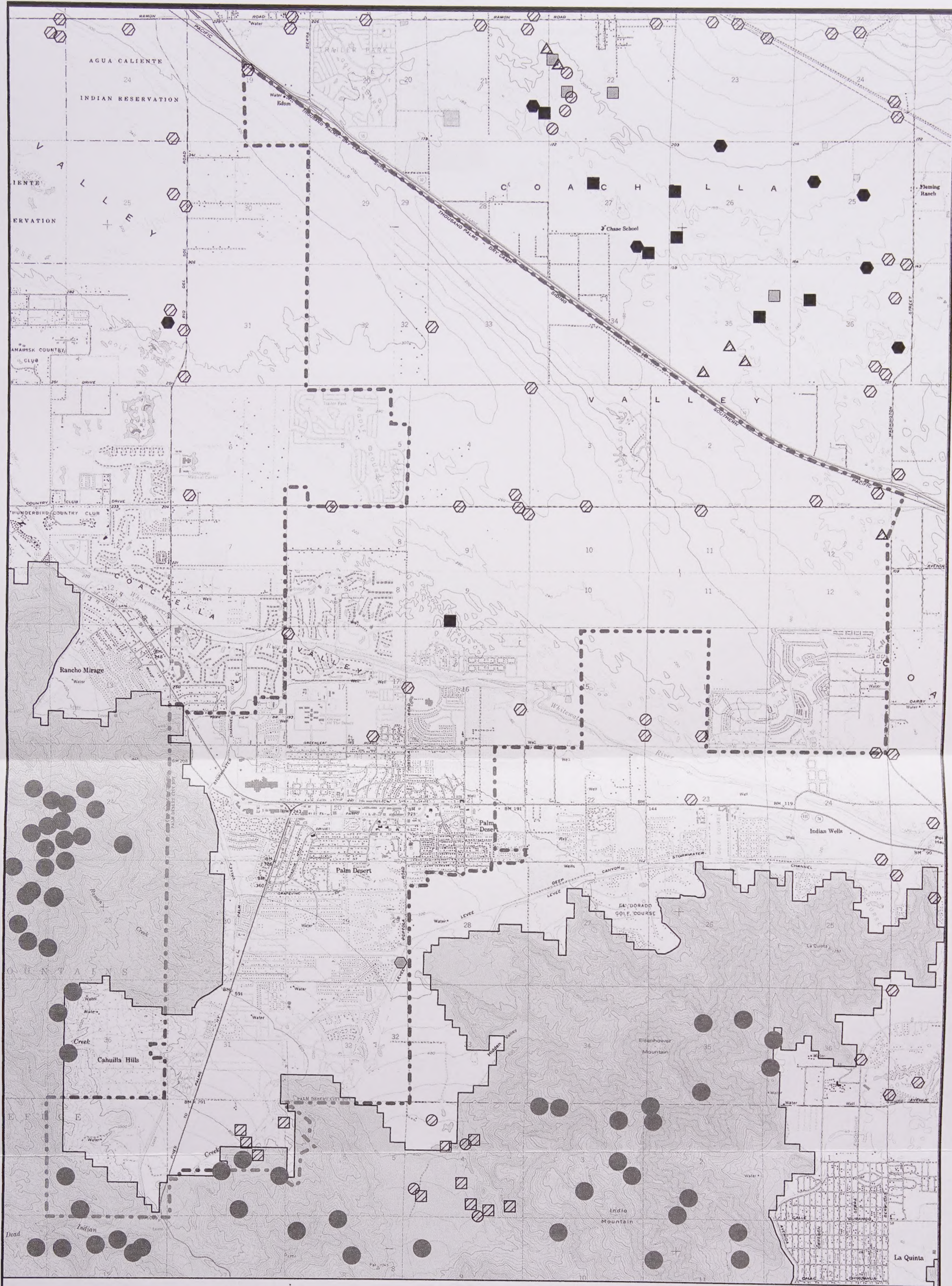
 Palm Springs Ground Squirrel

 Bighorn Sheep Critical Habitat

 Bighorn Sheep Sighting

 Desert Tortoise

Source: AMEC Environmental and Energy Services



City Limits

Coachella Valley Milkvetch

Desert Pupfish

Palm Springs Ground Squirrel

Bighorn Sheep Critical Habitat

Coachella Giant Sand Treader Cricket

Flat-tailed Horned Lizard

Bighorn Sheep Sighting

Desert Tortoise

Coachella Valley Fringe-toed Lizard

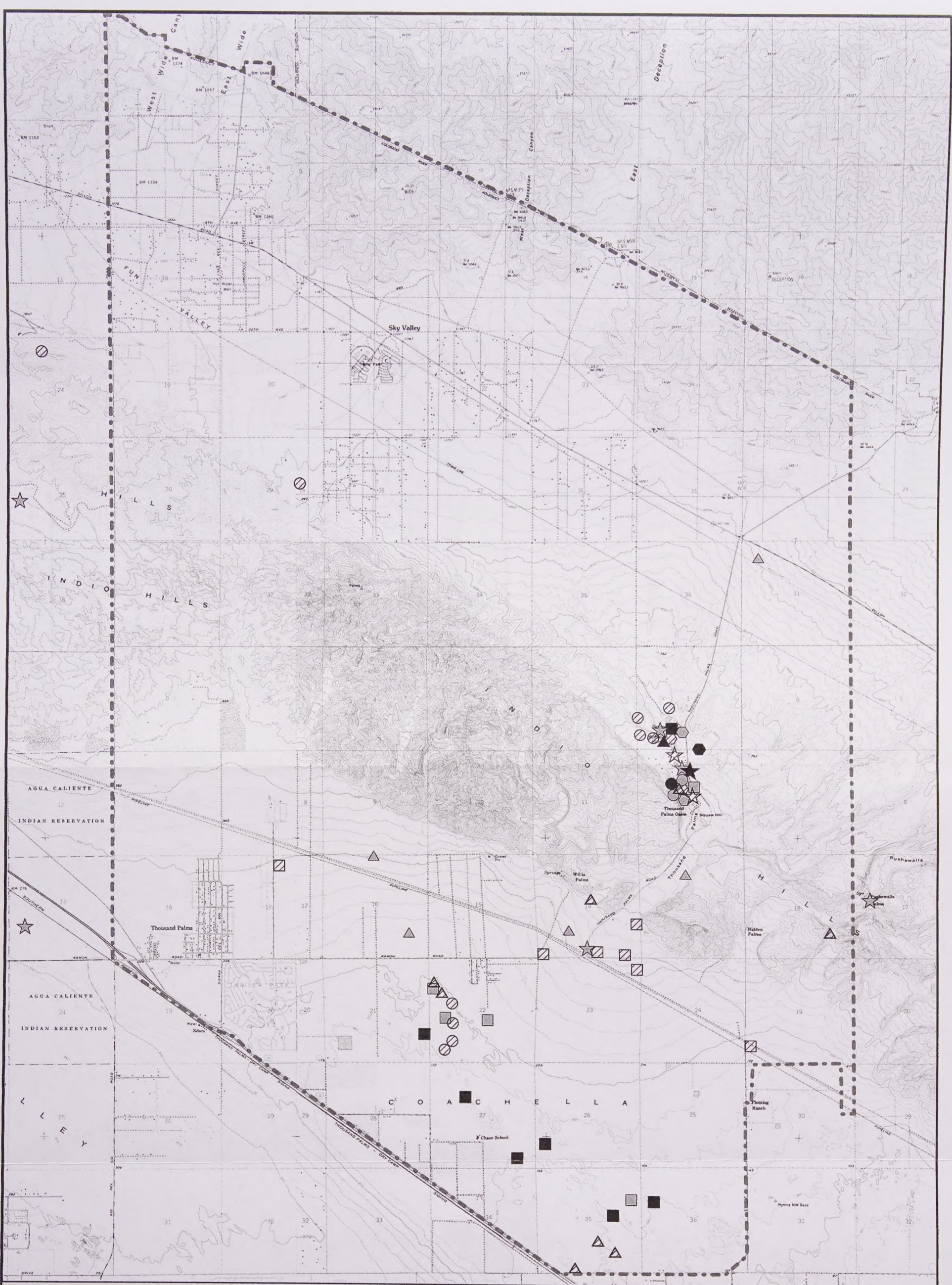
Source: AMEC Environmental and Energy Services



- | | |
|--|---|
|  Sphere of Influence East |  Coachella Valley Fringe-toed Lizard |
|  Palm Springs Ground Squirrel |  Coachella Valley Milkvetch |

Source: AMEC Environmental and Energy Services





- | | | | | |
|--|--|--|--|---|
| General Plan Study Area | | | | |
| Coachella Valley Milkvetch
Coachella Giant Sand Treader Cricket
Coachella Valley Grasshopper | Desert Pupfish
Crissal Thrasher
Least Bell's Vireo | LeConte's Thrasher
Summer Tanager
SW Willow Flycatcher | Yellow Breasted Chat
Yellow Warbler
Palm Springs Ground Squirrel | Palm Springs Pocket Mouse
Southern Yellow Bat
Burrowing Owl |

Source: AMEC Environmental and Energy Resources



Table IV-1
Sensitive Flora Reported From the Vicinity of Palm Desert

Sensitive species	Habitat and Distribution	Activity Season ¹	Status Designation ²	Occurrence Potential ²
Coachella Valley milkvetch <i>Astragalus lentiginosus</i> var. <i>coachellae</i>	Sand dunes and sand sheets Coachella Valley	Feb to May	Fed: E Calif: ND CNPS: List 1B R-E-D: 2-2-3	Occurs C. V. Preserve
Flat-seeded spurge <i>Chamaesyce platysperma</i>	Dunes, sand flats, Sonoran Desert scrub SE Calif., Ariz., Mexico	Feb to May	Fed: SC Calif: ND CNPS: List 1B R-E-D: 3-2-2	Very low (Historical record believed to be an isolated disjunct)
Mecca aster <i>Xylorhiza orcuttii</i>	Washes, alluvial fans, Sonoran Desert scrub SE Calif. In Indio and Mecca Hills	Mar to May	Fed: SC Calif: ND CNPS: List 1B R-E-D: 2-2-3	Moderate
Glandular ditaxis <i>Ditaxis clariana</i>	Rocky hillsides, canyon washes Sonoran mixed woody and succulent scrub. SE Calif. AZ, Baja	Dec to Mar	Fed: ND Calif: ND CNPS: List 2 R-E-D: 3-2-1	Moderate

Table IV-2
Sensitive Invertebrates Reported From the Vicinity of Palm Desert

Sensitive species	Habitat and Distribution	Activity Season ¹	Status Designation ²	Occurrence Potential ²
Coachella giant sand treader cricket <i>Macrobaenetes valgum</i>	Dunes and sand flats Coachella Valley	Spring - Summer	Fed: SC Calif: ND	Occurs (C. V. Preserve)
Coachella Valley Jerusalem cricket <i>Stenopelmatus cahuilensis</i>	Dunes and sand flats W. Coachella Valley	Spring - Summer	Fed: SC Calif: ND	Low Probably out of range
Coachella Valley grasshopper <i>Spaniacris deserticola</i>	Sandy flats with <i>Tiquilia</i> Coachella Valley, Imperial Co. San Berd. Co., Sonora	August - October	Fed: ND Calif: ND	Occurs
Casey's June beetle <i>Dinacoma caseyi</i>	Alluvial fans Coachella Valley	April	Fed: ND Calif: ND	Unknown
Dark aurora blue (Dotted blue) <i>Euphilotes enoptes cryptorufe</i>	Santa Rosa & San Jacinto Mts.	May-July	Fed: ND Calif: ND	Low Pinyon Crest Possible near
Moth lacewing "Cheeseweed owlfly" <i>Oliarces clara</i>	Desert canyons with creosote bush. Riverside, San Bernardino, Imperial counties, Arizona	April - May	Fed: SC Calif: ND	High

Table IV-3
Sensitive Fish, Amphibians and Reptiles Reported From the Vicinity of Palm Desert

Sensitive species	Habitat and Distribution	Activity Season ¹	Status Designation ²	Occurrence Potential ²
Desert Pupfish <i>Cyprinodon Macularius</i>	Springs and drainage canals near the Salton Sea	Year - round	Fed: E Calif: E	Occurs
Desert Slender Salamander <i>Cyprinodon macularius</i>	Desert fan palm oasis Santa Rosa Mountains	Mar-Oct	Fed: T Calif: T	Occurs
Desert tortoise <i>Gopherus agassizi</i>	Creosote bush scrub Deserts of CA, AZ, NV, UT	Mar - Oct	Fed: T Calif: T	Occurs
Coachella Valley fringe-toed lizard (Preserve) <i>Uma inornata</i>	Dunes, sandy areas, wind-blown deposits, Coachella Valley.	Spring - Summer	Fed: T Calif: E	Occurs (C. V.
Flat-tailed horned lizard (Preserve) <i>Phrynosoma mc'calli</i>	Dunes, sandy flats, washes Riverside and Imperial	Spring - Summer Counties, Arizona, Mexico	Fed: SC Calif: ND	Occurs (C. V.
Chuckwalla <i>Sauromalus obesus</i>	Rocky outcrops and mountain slopes	Spring - Summer	Fed: SC Calif: ND	Occurs

Table IV-4
Sensitive Birds Reported From the Vicinity of Palm Desert

Sensitive species	Habitat and Distribution	Activity Season ¹	Status Designation ²	Occurrence Potential ²
Prairie falcon <i>Falco mexicanus</i>	Cliffs SW United States	Year - round	Fed: ND Calif: CSC	High
Golden eagle <i>Aquila chrysaetos</i>	Cliffs Northern hemisphere	Year - round	Fed: ND Calif: CSC	High Nests near Deep Cyn.
Burrowing owl <i>Athene cunicularia</i>	Deserts, grasslands, agricultural land. Western U. S.	Year - round	Fed: ND Calif: CSC	High Recorded
Loggerhead shrike <i>Lanius ludovicianus</i>	Deserts, grasslands most of U. S.	Year - round	Fed: SC Calif: ND	Occurs
Crissal thrasher <i>Toxostoma dorsale</i>	Dense desert scrub, mesquite, washes. Western U. S.	Year - round	Fed: ND Calif: CSC	Low
LeConte's thrasher <i>Toxostoma lecontei</i>	Open desert scrub, cactus SE California	Year - round	Fed: ND Calif: CSC	High

Table IV-5
Sensitive Mammals Reported From the Vicinity of Palm Desert

Sensitive species	Habitat and Distribution	Activity Season ¹	Status Designation ²	Occurrence Potential ²
Southern yellow bat <i>Lasiurus ega</i>	SE Calif. to Texas, Mexico	Year - round	Fed: ND Calif: ND	Occurs
Palm Springs round-tailed ground squirrel <i>Spermophilus tereticaudus</i> <i>Chlorus</i>	Dunes and sandy flats Coachella Valley	Year - round	Fed: SC Calif: ND	Occurs (C. V. Preserve)
Palm Springs little pocket mouse <i>Perognathus longimembri bangsi</i>	Desert scrub with sandy soil W. end of Coachella Valley, Thousand Palms, base of Indio Hills	Spring - Summer	Fed: SC Calif: ND	Occurs
Bighorn sheep <i>Ovis canadensis</i>	Rocky hillsides	Year - round	Fed: END Calif: ND	Occurs

Definitions of Status Designations and Occurrence Probabilities

Federal designations: (U. S. Endangered Species Act, U.S. Fish and Wildlife Service):

END: Federally listed; Endangered

THR: Federally listed; Threatened

SC: Species of concern.; Threat and/or distribution data are not sufficient to support federal listing at this time

ND: No designation.

State designations: (California Endangered Species Act, California Dept. of Fish and Game)

END: State listed, Endangered

THR: State listed, Threatened

CSC: California Species of Special Concern

ND: No designation

Definitions of occurrence probability:

Present: Observed on the site by or recorded on-site by other qualified biologists.

High: Recorded in similar habitat in region by qualified biologists, or habitat on the site is a type often used by the species and the site is within the known range of the species.

Moderate: Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.

Low: Site is within the species' known range, but habitat on-site is rarely used by the species, or site is questionably within the range of the species.

Absent: A focused survey failed to detect the species, or, no suitable habitat is present.

California Native Plant Society (CNPS) Designations: (Note: According to CNPS [Skinner and Pavlik 1994], plants on Lists 1B and 2 require mandatory consideration under the California Environmental Quality Act.)

List 1B: Plants rare and endangered in California and throughout their range.

List 2: Plants rare, threatened or endangered in California but more common elsewhere.

CNPS R-E-D Code:

Rarity:

- 1: Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time.
- 2: Occurrence confined to several populations or one extended population.
- 3: Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

Endangerment:

- 1: Not endangered.
- 2: Endangered in a portion of its range.
- 3: Endangered throughout its range.

Distribution:

- 1: More or less widespread outside California.
- 2: Rare outside California.
- 3: Endemic to California (i.e., does not occur outside California).

References: USFWS (1990, 1994, 1996), Remsen (1978), Williams (1976), and Skinner and Pavlik (1994).

Urbanization and Biological Resources

It is clear from a review of aerial photographs and from on-site inspection of development occurring within the General Plan study area that almost all urbanization clears the land of all vegetation and wildlife. Whether development comprises one house on a large lot, a residential subdivision or regional shopping center, the native vegetation and its associated habitat value are typically completely removed. Subsequently, when landscaping is introduced, exotic and other non-native plants are frequently the prevalent plant materials used. Many of these plants have little or no habitat value for native birds and animals, but they can “escape” and invade native habitats and compete with native vegetation for nutrients and water in the wild.

To counteract this impact typically associated with urbanization, the City should require that new development, whether public or private, utilize native trees, shrubs and groundcover in landscape plans, including plants salvaged on-site, to the greatest extent practical. Alternative design approaches may include encouraging the use of “links” course designs in new golf courses with non-play areas landscaped with native vegetation. The City should also prohibit the use of certain non-native plant species that compete with native vegetation (see General Plan Biology Report in the GP EIR).

ENDANGERED SPECIES MANAGEMENT AND BIODIVERSITY PROTECTION

Communities have gradually become aware of the harm that has been continuing to occur to wildlife and biological resources. Slowly, societies are adopting state and national legislation and international treaties to protect these irreplaceable assets. Parks, wildlife refuges, nature preserves, zoos and restoration programs have been established to protect nature and rebuild depleted populations and habitats. There has been encouraging progress in this area, and the Coachella Valley continues with major efforts in wildlife conservation; nonetheless, much remains to be done locally and globally.

Federal Endangered Species Act

The U.S. Endangered Species Act (ESA) of 1973 has been important legislation that provides a powerful tool for wildlife protection. Where earlier regulations had been focused on "game" animals, the ESA programs seek to identify all endangered species and populations and to save as much biodiversity as possible, regardless of the usefulness to humans. The US Fish and Wildlife Service maintains a list of endangered and threatened species of plants and wildlife, including birds, insects, fish, reptiles, mammals, crustaceans, flowers, grasses and trees.

The ESA regulates a wide range of activities involving endangered species including the "taking" (harassing, harming, pursuing, hunting, shooting, trapping, killing, capturing or collecting) either accidentally or intentionally; importing into or exporting out of the United States; possessing, selling, transporting or shipping; and selling or offering for sale any endangered species. Violators of the ESA are subject to fines up to \$100,000 and one-year imprisonment. In 2000, the United States had 1,214 species on its endangered and threatened species lists and about 274 candidate species waiting to be considered.

Once a species is officially listed as endangered, the Fish and Wildlife Service is required to prepare a recovery plan detailing how populations will be rebuilt to sustainable levels. However, it generally takes several of years to reach an agreement on a specific recovery plan. Among the difficulties are costs, politics, local economic interests, and the fact that once a species is endangered, much of its habitat and ability to survive is already compromised.

Private land is essential in endangered species protection. Eighty percent of the habitat for more than half of all listed species is on nonpublic property. In 1995, the Supreme Court ruled that destroying habitat is as harmful to endangered species as directly taking them. However, recently, the US Fish and Wildlife Service has been negotiating agreements called Habitat Conservation Plans (HCP) with private landowners. Under these plans, landowners are allowed to disturb a portion of their land as long as the species benefits overall.

California Endangered Species Act

The California Endangered Species Act (CESA) is embodied in Fish and Game Code, Sections 2050 et seq. Section 2080 of the Fish and Game Code prohibits "take" of any species that the commission determines to be an endangered species or a threatened species. Take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" a protected species. CESA allows for take incidental to otherwise lawful development projects. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project caused losses of listed species populations and their essential habitats.

Through permits or memorandums of understanding, the CDFG also may authorize individuals, public agencies, universities, zoological gardens, and scientific or educational institutions, to import, export, take, or possess any endangered species, threatened species, or candidate species of plants and animals for scientific, educational, or management purposes.

Prior to the enactment in 1984 of the California Endangered Species Act (CESA), the California Legislature passed legislation in various bills creating a list of species that are fully protected. In 1933, various mammals were listed as fully protected. In 1957, various species of birds were listed as fully protected, and in 1970, various fishes, reptiles and amphibians were listed as fully protected. Today, there are 37 fully protected species, including the Peninsular bighorn sheep. In recent years, some of these fully protected species have also been listed as endangered or threatened under federal or state endangered species laws.

The Department of Fish & Game (DFG) has determined that the fully protected statutes prohibit any state agency or department from issuing incidental take permits for any species listed as fully protected. There is no provision in the fully protected species statutes for mitigation. This determination has resulted in delaying or completely halting significant projects of local, regional and state-wide interest. In 2002, the state legislature is reviewing proposed amendments to full protection legislation.

Habitat Protection

One of the main reasons for the current increase in species listings and extinction is habitat loss. Habitat fragmentation divides communities into isolated groups, which are more vulnerable to catastrophic events, and that have less genetic variability to sustain viable populations. Habitat loss also reduces the resources that can be utilized by a species. World-wide, destruction, fragmentation and encroachment into sensitive habitats such as forests, sand dunes, wetlands, and other biologically rich or unique ecosystems threatening to eliminate species at a rate that may rival mass extinctions of geologic history. Deeper understanding of ecosystems and advances in conservation biology have given rise to a new discipline of restoration ecology, which seeks to repair or reconstruct ecosystems damaged by human or natural forces.

Habitat Conservation Plans

The Coachella Valley and important areas of the General Plan study area were part of one of the first habitat conservation plans (HCP) developed in the United States. This HCP was developed to protect and assure the long-term viability of the Coachella Valley Fringe-toed Lizard, which was designated as "Threatened" by the US Fish and Wildlife Service in the early 1980s. Since that time, the City and other jurisdictions in the valley have coordinated a highly successful effort to collect impact fees and purchase habitat for the lizard, which has also benefited other sensitive sand-adapted species.

Coachella Valley Multiple Species Habitat Conservation Plan

Palm Desert, other Coachella Valley cities and Riverside County have also embarked on a more ambitious and broadly based habitat plan known as the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP). The approach being taken in this plan is to secure the long-term preservation of a wide range of plant and animal species and their habitats, addressing not only species listed by state and federal agencies, but also including those which have the potential to be come listed in future years.

The MSHCP is currently (2002) being prepared by the Coachella Valley Association of Governments (CVAG) and the Coachella Valley Mountains Conservancy. Other partners in the development of this regional plan include the US Bureau of Land Management, The California

Department of Fish and Game, National Park Service, US Forest Service and local Native American Indian Tribes. Local research institutions, including the staff at the University of California-Riverside Deep Canyon Desert Research Center and the Center for Natural Lands Management, have played an integral part in the development of this plan. The goal is to conserve biological diversity on a regional scale. The MSHCP's ecosystem approach recognizes the fragile and interconnected nature of biological communities, and focuses on entire systems, including the abiotic processes that support them. The Coachella Valley MSHCP is intended to provide a network of adequate habitat and wildlife populations that assure their long-term viability.

Peninsular Bighorn Sheep Recovery Plan



In 2000, the US Fish and Wildlife Service completed and adopted the Recovery Plan for Bighorn Sheep in the Peninsula Ranges. The goal of the plan is to establish a self-sustaining wild population of bighorn sheep in this area by improving survival of breeding adults, conserving

limited and sensitive sheep habitat, minimizing the adverse effects of human disturbance, and protecting and isolating sheep from the dangers associated with the urban areas interfacing with sheep habitat.

FUTURE DIRECTIONS

The City of Palm Desert and the entire Coachella Valley is at a critical juncture, one that requires a thoughtful valuation of our wildlands and wildlife, sensitivity towards the area's unique and valuable biological resources, and careful planning that protects, preserves and enhances one of the regions most important assets. As growth and development continue to take place throughout the Coachella Valley and the General Plan planning area, native habitat will be converted to urban uses and plant and wildlife communities will be diminished.

Cities need to move towards an ideology and value system that supports the preservation of natural resources and reflects the importance of our environment. Communities need to find ways to make development more compatible with the natural communities, thereby working to protect biological resources. The City recognizes the important role it has played and will continue to play in assuring the protection of species and their habitat. This proactive leadership role will be achieved through close coordination and cooperation with other valley jurisdictions, and the implementation of a General Plan, Development Code and other regulatory documents that embody wildlife protection and conservation as essential goals.

GOALS, POLICIES AND PROGRAMS

Goal 1

Protection and preservation of City, planning area and regional biological resources, especially sensitive, rare, threatened or endangered species of plants and wildlife and their habitats.

Goal 2

A pattern of community development that comprises a functional and harmonious relationship between nature and the built environment, and the local economy.

Policy 1

The City shall establish an information database and mapping system of sensitive plants, animals and habitats occurring within the General Plan study area, which shall be accurately and regularly updated.

Program 1.A

The City shall utilize project-specific, local and regional biological resource studies to periodically update the General Plan and related environmental data to maintain an accurate, effective and accessible information resource on sensitive plants, animals and habitats located in the planning area.

Responsible Agency: Community Development Department, GIS Staff, CVAG

Schedule: Ongoing; Minimum every five years

Program 1.B

The City shall coordinate with local research institutions and conservancy groups, and shall share information from project studies and other data collection and research efforts. The City shall periodically consult with these groups and institutions to assure accurate and up-to-date information on the condition of sensitive biological resources in the planning area.

Responsible Agency: Community Development Department, GIS Manager, Deep Canyon Desert Research Station, Center for Natural Lands Management, Coachella Mountains Conservancy, Bighorn Institute, BLM

Schedule: Ongoing; Minimum every five years

Policy 2

The City shall proactively monitor the conversion of open lands to urban uses by reviewing all development proposals on vacant land to determine their potential to adversely impact sensitive plants, animals and habitats, and to assure minimal impacts on habitats and wildlife

Program 2.A

As part of the development review process, the City shall conduct a thorough assessment of impacts to habitat and/or wildlife occurring on or in the vicinity, and shall, where warranted, require the preparation of detailed biological resource surveys and mitigation programs.

Responsible Agency: Community Development Department

Schedule: Continuous

Policy 3

The City shall be an active supporter of and shall provide leadership and participate in regional efforts to evaluate and protect sensitive plants and wildlife, including suitable habitat for rare and endangered species occurring in the City, planning area and region.

Program 3.A

The City shall establish and maintain a broad range of contacts with local, county, state and federal agencies, as well as educational institutions and private non-profit groups, and cooperate in efforts to maintain and broaden habitat conservation, especially that essential for the preservation of endangered species.

Responsible Agency: Community Development Department

Schedule: Continuous

Program 3.B

The City shall continue to participate and be a pro-active partner in the development and implementation of the Coachella Valley Multiple Species Habitat Conservation Plan with a particular focus on habitat located in the blowsand corridor and the Santa Rosa and Little San Bernardino Mountains.

Responsible Agency: Community Development Department, CVAG

Schedule: Continuous

Program 3.C

In advance of the adoption of the Coachella Valley Multiple Species Habitat Conservation Plan, the City shall participate in the interim project review process established by CVAG, as necessary, to evaluate the potential effect of development proposals on regional biological resources.

Responsible Agency: Community Development Department, CVAG

Schedule: Continuous

Policy 4

To the greatest extent practical, the City shall encourage and in some instances may require developers to salvage native vegetation occurring on proposed development sites for incorporation into project landscaping or shall transplant viable trees and shrubs to other development sites.

Program 4.A

The City shall develop and make available information on salvaging and transplanting cacti, shrubs and other appropriate native vegetation, and shall provide a list of qualified arborists as part of a program to preserve and extend the native plant community throughout the City.

Responsible Agency: Public Works Department, The Living Desert

Schedule: Continuous

Program 4.B

Integral with efforts to facilitate preservation and incorporation of native vegetation in new development, the City shall prepare and maintain a comprehensive list of plant materials, which shall include native and non-native, drought tolerant trees, shrubs and groundcover that complement the local environment, provide habitat for local wildlife, and extend the desert environs into the built environment. A list of prohibited plant materials shall also be prepared.

Responsible Agency: Public Works Department, The Living Desert

Schedule: 2004; Continuous

Policy 5

The City shall encourage and cooperate in the establishment of multiple use corridors that use drainage channels and utility easements to provide wildlife corridors and public access interconnections between open space areas in the community and vicinity.

Program 5.A

The City shall consult and coordinate with the Coachella Valley Water District, Riverside County Flood Control District, Southern California Edison and other appropriate public and quasi-public agencies to encourage the establishment of a system of multiple use corridors for movement of people and wildlife between open space areas.

Responsible Agency: Community Development and Public Works Departments, CVWD, SCE, RCFC

Schedule: 2004-05

Policy 6

The City shall pro-actively encourage and promote an understanding and appreciation of sensitive biological resources and the value of their thoughtful integration in the built and natural environment

Program 6.A

The City shall continue to develop and promote a comprehensive education program designed to make the public more aware of City and valley biological resources. In this effort, the City shall solicit the aid of the Desert Sands and Palm Springs Unified School Districts, the Living Desert and similar educational program providers. Relevant public education information shall also be developed for distribution by Animal Control staff.

Responsible Agency: Community Development Department, DSUSD, PSUSD, The Living Desert, Animal Control

Schedule: 2004-06

WATER RESOURCES ELEMENT

PURPOSE

The Water Resources Element addresses water quality, availability and conservation for the City's current and future needs. The Element also discusses the importance of on-going coordination and cooperation between the City, Coachella Valley Water District (CVWD) and other agencies responsible for supplying water to the region. Topics include the Coachella Valley's ground water replenishment program, consumptive demand of City residents and businesses, and wastewater management and its increasingly important role in the protection of ground water resources. The goals, policies and programs set forth in this element direct staff and other City officials in the management of this essential resource.

BACKGROUND

The Water Resources Element is directly related to the Land Use Element, which is also responsive to the location and availability of water resources. The Element also has a direct relationship to the Flooding and Hydrology Element, in its effort to protect and enhance groundwater recharge. Water issues are also integral components of the following elements: Hazardous and Toxic Materials, Police and Fire Protection, Economic Development, Emergency Preparedness, and Water, Sewer and Utilities.

The Water Resources Element addresses topics set forth in California Government Code Section 65302(d). Also, in accordance with the California Environmental Quality Act (CEQA), Section 21083.2(g), the City is empowered to require that adequate research and documentation be conducted when the potential for significant impacts to water and other important resources exists.

The early production of water in the Coachella Valley is associated with the direct use and diversion of streams in mountain canyons and the excavation of shallow wells by Native Americans within the past 500 years. Early in the 20th century, wells were drilled and groundwater was pumped to provide agricultural irrigation and domestic water. Until the 1930s, groundwater recharge in the region was from percolation of natural runoff. While there has been some inflow of groundwater into basins underlying the Coachella Valley from groundwater basins outside the region, areas of low permeability, fault barriers and constrictions in basin profiles limit the movement of groundwater. To assure a continuous supply of domestic water to meet demand, ground water replenishment programs and wastewater reclamation strategies have been implemented throughout the Coachella Valley. These may soon be extended to include reclaimed agricultural runoff, greater use of native and other drought-tolerant landscaping, and greater use efficiencies in homes and businesses.

DOMESTIC WATER RESOURCES

The Coachella Valley is underlain by several large subsurface aquifers, known as subbasins, with boundaries that are generally defined by tectonic faults that restrict the lateral movement of water. The Whitewater River subbasin, the largest groundwater repository for the Coachella Valley, underlies the City of Palm Desert and a substantial portion of the valley floor. It is the primary groundwater repository serving the Palm desert planning area.

The Coachella Valley Water District (CVWD) provides domestic water services to Palm Desert using wells to extract groundwater from the Whitewater River subbasin. The subbasin is artificially recharged with imported Colorado River water carried via the Metropolitan Water District Aqueduct, which passes through the northern Coachella Valley. The subbasin is also recharged naturally with runoff from the San Jacinto, Santa Rosa and San Bernardino Mountains.

Limited portions of the General Plan planning area, including lands north of the Indio Hills, are underlain by the Desert Hot Springs subbasin. The Santa Rosa Mountains, which are comprised of non-water bearing bedrock, and the Indio Hills are not underlain by any subsurface aquifers.

Desert Hot Springs Subbasin

The Sky Valley community, in the northerly portion of the planning area, is underlain by the Desert Hot Springs subbasin. Water-bearing materials in the subbasin primarily consist of coarse-grained, poorly sorted alluvial fan deposits, which are principally of Ocotillo conglomerate estimated to be more than 700 feet thick. Recent fanglomerates cover most of the land surface, and recent alluvium in the subbasin ranges in thickness from a thin edge to more than 100 feet. According to CVWD's "Engineer's Report on Water Supply and Replenishment Assessment, 2000-2001," the Desert Hot Springs subbasin contains approximately 4.1 million acre-feet of groundwater in storage in the first 1,000 feet below the ground surface.

Groundwater in this subbasin is characterized by high concentrations of fluoride, total dissolved solids, sodium sulfates and other undesirable minerals, which have limited its use for agricultural and domestic water purposes. The presence of high mineral concentrations is largely due to faulting along the margins of the subbasin. Several of the subbasin's boundaries are defined by faults, including the Mission Creek, Indio Hills, San Andreas, and Mecca Hills Faults. Faulting is associated with geothermal activity, which warms the earth's crust. As subsurface temperatures rise, minerals contained within the subbasin's sediment profiles are more easily dissolved and mixed with groundwater, increasing the overall mineral content of the water.

The Coachella Valley Water District does not extract groundwater from the Desert Hot Springs Subbasin, given its high concentration of undesirable minerals. Instead, domestic water for the Sky Valley and Indio Hills communities is extracted by CVWD from the Mission Creek Subbasin to the west.

Mission Creek Subbasin

Although the Mission Creek Subbasin does not underlie the General Plan planning area, it is the source of domestic water for the Sky Valley and Indio Hills communities in the northerly portion of the planning area. The Subbasin is located west of the Desert Hot Springs Subbasin and extends west to the base of the San Bernardino Mountains. Water depths below the ground surface, as determined by the U.S. Geological Survey in 1971, range from a maximum of 425 feet in the northwesterly portion, to flowing wells at a minimum in a narrow strip along the Banning Fault.

According to CVWD, the Mission Creek Subbasin has approximately 2.6 million acre-feet of groundwater in storage in the first 1,000 feet below the ground surface. It is naturally recharged by surface and subsurface discharge, most of which is from Mission Creek, and Little and Big Morongo Creeks. A steady water level decline of approximately 0.5 to 1.5 feet per year has been observed since 1952.

Whitewater River Subbasin

The City of Palm Desert is underlain by the Whitewater River subbasin, which encompasses approximately 400 square miles and underlies much of the Coachella Valley. It generally extends from the junction of Interstate-10 and Highway 111, to the Salton Sea approximately 70 miles to the east. The subbasin is bounded on the north and east by the Garnet Hill and San Andreas Faults, respectively, and on the south by the San Jacinto and Santa Rosa Mountains.

The Whitewater River subbasin is divided into four subareas: Palm Springs, Thermal, Thousand Palms and Oasis. Most of the General Plan planning area, including the incorporated City of Palm Desert, occurs within the boundaries of the upper Thermal subarea, which extends from Cathedral City to Point Happy (near the intersection of Washington Street and State Highway 111). Lands in the Thousand Palms community occur within the boundaries of the Thousand Palms subarea.

Thermal Subarea

The Thermal subarea is characterized by confined or semi-confined groundwater conditions, with free moving water conditions present in alluvial fans at the base of the Santa Rosa Mountains, including alluvial fans at the mouth of Deep Canyon. CVWD well logs have identified two aquifer zones in the Thermal subarea. The lower aquifer zone is estimated to be at least 500 feet and possibly more than 1,000 feet thick, and is composed of Ocotillo conglomerate, which consists of gravels and silty sands interbedded with silt and clay. The upper aquifer zone is similar in composition to the lower aquifer zone, but is not as thick. An aquitard layer, composed of fine-grained materials that slow the vertical flow of groundwater, separates the upper and lower aquifer zones and is estimated to be between 100 and 200 feet thick throughout much of the Thermal subarea. According to CVWD, the entire Thermal subarea contains approximately 19.4 million acre-feet of groundwater in storage in the first 1,000 feet below the ground surface.

Groundwater levels in the Thermal subarea are directly related to those in the Palm Springs subarea to the west. Water moves from the Palm Springs subarea southeastward into the Thermal subarea, and when water levels in the Palm Springs subarea decline, the upper zone available for recharge at Point Happy in the Thermal subarea also declines. This trend may be changing as increased pumpage is lowering the groundwater table in the lower Thermal subarea more rapidly than in the Palm Springs subarea.

Thousand Palms Subarea

The Thousand Palms subarea extends along the southwesterly edge of the Indio Hills and is small in comparison to the Thermal subarea. According to CVWD, the Thousand Palms subarea contains approximately 1.8 million acre-feet in groundwater storage in the first 1,000 feet below the ground surface.

The southwesterly boundary of the Thousand Palms subarea has been determined based on distinctive groundwater mineral characteristics. Groundwater in the Thousand Palms subarea contains high concentrations of sodium sulfate, while groundwater in other subareas of the Whitewater River subbasin is generally composed of calcium bicarbonate. This is largely attributed to limited recharge to the Thousand Palms subarea.

The subarea is recharged by runoff from the Indio Hills, but the quantity of recharge is limited. Inflow from other subbasins is believed to be substantially limited, and there is little evidence of intermixing with the Thermal subarea to the south. With limited recharge, there is little opportunity for “dilution” from inflow groundwater, and there is a greater impact of native sodium sulfate on groundwater quality.

DEMAND AND OVERDRAFT IN THE COACHELLA VALLEY

Depletion of the groundwater in storage has continued steadily since the expansion of agricultural activities in the early 1900s and the development of the Coachella Valley as a destination resort area, with new landscaped golf courses and residential developments.

CVWD estimates that the water consumption rate in the Coachella Valley is approximately 550 gallons of water per capita per day. This is an aggregate figure that accounts for all water uses in the community, including residential, commercial, industrial, golf course, irrigation and other uses; this per capita consumption factor is not intended to represent demand associated with a specific land use. Project-specific impacts may be more or less, depending on the type and density of development, and the extent of water-intensive amenities (i.e. fountains, landscaping, swimming pools) incorporated into the project. CVWD estimates that 60% of water consumed is permanently “lost,” and 40% is returned to the subbasin for later use.

Groundwater pumped from the Upper Coachella Valley (generally extending from Whitewater to Palm Desert) is used primarily for domestic purposes and golf course irrigation. Water pumped from the Lower Valley (generally extending from La Quinta to the Salton Sea) is used primarily for domestic purposes and the irrigation of approximately 72,800 acres of agricultural land.

According to CVWD's "Coachella Valley Water Management Plan" (November 2000), in 1936, total water demand in the Coachella Valley was approximately 96,300 acre-feet per year. By 1999, demand had reached 668,900 acre-feet per year. These figures represent demand from all water users in the valley, including agricultural, municipal and industrial components, fish farms, and golf courses.

CVWD well monitoring data indicate that from the 1950s to the 1970s, water levels in the Upper Coachella Valley decreased approximately 50 to 100 feet. From the 1920s to the 1950s, water levels in the Lower Coachella Valley decreased by approximately 50 feet. Although they leveled off somewhat following the introduction of Colorado River water for irrigation in 1949, they began declining rapidly again in the 1980s, a trend which has continued to the present day. Water levels in the vicinity of a well in Oasis have declined more than 80 feet since the mid-1980s.

The historical depletion of groundwater in the Coachella Valley has led to a condition known as overdraft, in which the demand for groundwater exceeds the amount of recharge into the groundwater basin over a period of time. One method of determining the extent of overdraft is to compare the change in freshwater storage in the Coachella Valley's groundwater subbasins. The change in freshwater storage is the difference between inflows and outflows of the basin, excluding inflows of poor quality water from the Salton Sea and irrigation flows that are induced by overdraft conditions.

In 1999, the change in freshwater storage in the Coachella Valley was estimated at 136,700 acre-feet per year. In other words, approximately 136,700 acre-feet of groundwater are being withdrawn from the basin per year, and are not being replaced. Of this, approximately 32,400 acre-feet are in overdraft in the Upper Coachella Valley, and 104,300 acre-feet are in overdraft in the Lower Coachella Valley. The cumulative change in freshwater storage from 1936 to 1999 is estimated at nearly 4.7 million acre-feet. Table IV-5, below, illustrates the relative imbalance between consumption and recharge in Coachella Valley groundwater basins (including the upper valley and lower valley).

Within the more limited CVWD Management Area, net overdraft is estimated at 35,621 acre-feet per year, or 0.32% per year. The Management Area includes only a portion of the Whitewater River subbasin, including the Palm Springs and Thousand Palms subareas, and that portion of the Upper Thermal subarea experiencing a significantly declining water table.

Overdraft conditions can result in significant adverse social, environmental and economic impacts, including an increased potential for land subsidence which can result in ground fissuring and damage to buildings and their foundations, sidewalks, and subsurface pipelines. Between 1996 and 1998, as much as 7 centimeters of subsidence occurred in the Palm Desert area. Other adverse impacts resulting from overdraft include increased infrastructure and energy costs associated with drilling deeper wells, pumping from greater depths with larger pumps, and the threat of a diminishing long-term water supply. Water quality may also be affected by encouraging intrusion of lower quality groundwater into pumping areas.

Table IV-6
Comparison of Historical Inflows and Outflows
In the Coachella Valley, 1936-1999
(acre-feet)

Water Balance Component	Total Flows 1936	Total Flows 1999
Inflows		
Natural Recharge	32,600	16,800
Agricultural Returns	37,200	130,700
Domestic Returns	4,300	59,200
Golf Course Returns	500	39,300
Wastewater Percolation	200	16,500
SWP Recharge	0	88,800
Inflows from outside area	12,900	11,500
Inflows from Upper Valley	59,100	29,400
Total Inflows	146,800	392,200
Outflows		
Groundwater Pumpage	92,400	376,100
Flows to Drains	3,200	55,800
Evapotranspiration	21,100	4,900
Net Flow to Salton Sea	5,300	-400
Outflows to Lower Valley	59,100	29,400
Total Outflows	181,100	465,800
Annual Change in Storage	-34,300	-73,600
Annual Change in Freshwater Storage	-41,800	-136,700
Cumulative Change in Storage since 1936	-34,300	-1,421,400
Cumulative Change in Freshwater Storage since 1936	-41,800	-4,684,000
Source: Table 3-4, "Coachella Valley Draft Water Management Plan," Coachella Valley Water District, November 2000.		

WATER SUPPLY SOURCES

Groundwater is the principal water supply source in the Coachella Valley, the substantial underground storage having grown over time from natural recharge. Other water sources include: surface water from the Whitewater River and the Snow, Falls and Chino Creeks; recycled water from wastewater treatment plants in the Coachella Valley; and imported Colorado River water transported via the Colorado River Aqueduct and the Coachella Branch of the All-American Canal.

Natural Inflow

The Whitewater River Subbasin is naturally recharged by inflows from the San Gorgonio Pass area and across the Banning Fault. However, inflow from outside the subbasin represents only a small percentage of groundwater recharge sources. Inflows are typically between 7,000 and 13,000 acre-feet per year. In 1999, inflow was estimated at 11,500 acre-feet per year, which was only 3 percent of the total water balance. Natural inflow does not change significantly over time and is no longer relied upon as the only source of groundwater recharge.

Groundwater Replenishment Program

To assure the continued availability of domestic water to the Coachella Valley, the CVWD and Desert Water Agency (DWA) have contracted for State Water Project resources. Under this contract, water from northern California would be transported to the valley via the Coachella Aqueduct. However, given the extraordinary costs associated with the construction of such a project, the aqueduct has not yet been built.

In the interim, CVWD and DWA have entered into contract agreements with the Metropolitan Water District of Southern California (MWD) and other parties of interest. These arrangements allows CVWD and DWA to exchange their State Water Project (SWP) entitlements for like amounts of water from MWD's Colorado River Aqueduct, which passes through the northern portion of the Coachella Valley. MWD's aqueduct is tapped where it crosses the Whitewater River, and the exchange water is diverted to nineteen spreading ponds, where it percolates to replenish the Whitewater Subbasin.

CVWD has also constructed a pilot recharge facility just south of Lake Cahuilla to determine whether recharge can be successfully accomplished in the Lower Coachella Valley, where groundwater subbasins and subareas are characterized by aquitards (impermeable or semi-impermeable layers) that reduce the rate at which groundwater flows. The facility, which began operation in 1995 and was expanded in 1998, has been successful in recharging about 30,000 acre-feet per year.

A substantial amount of Colorado River water is also delivered to the Lower Coachella Valley via the Coachella Branch of the All-American Canal. This water is used primarily for the irrigation of approximately 72,800 acres of fruit and vegetable crops, but is also supplied to fish farms, waterfowl migration ponds ("duck clubs") and commercial greenhouses in the lower valley. A few golf courses and recreational lakes are also supplied by canal water.

The quantity of Colorado River water diverted to the Coachella Valley fluctuates when inadequate rainfall or snowfall require that the water be directed toward the Los Angeles basin. In 1977, under the exchange contract the Whitewater River subbasin received no Colorado River water due to severe droughts, and the 1991 drought limited delivery to only 14 acre-feet to the valley. However, since its inception in 1973, the SWP program has delivered more than 1.7 million acre-feet (or about 50,000 acre-feet per year) of Colorado River water to the Whitewater River subbasin. Despite these replenishment efforts, groundwater levels in the Coachella Valley continue to decline.

The 1931 Seven Party Agreement divides California's share of Colorado River water among seven California agencies, including CVWD. Per the agreement, the CVWD and Imperial Irrigation District (IID), which also serves the Coachella Valley, share the third priority position for Colorado River water. However, IID has the first option to take as much third priority water as it can put to "reasonable and beneficial use" within its service area.

A new tentative agreement, known as the Quantification Settlement Agreement, has been drafted between CVWD, IID and MWD, which proposes that an average of approximately 456,000 acre-feet per year be made available to CVWD during the lifetime of the agreement (75 years).

Approval of the agreement would provide CVWD with reasonable assurances of a continued supplemental water resource. The environmental analysis and review process for the agreement have not yet been completed, and formal approval is pending.

Tertiary Treated Water

To further reduce the impacts of development on groundwater supplies, CVWD has implemented the use of “recycled” or tertiary (third stage) treated wastewater for golf course, landscape and other irrigation purposes. Wastewater typically undergoes two levels of treatment before it is released to percolation ponds and reintroduced into the groundwater table. Tertiary treated wastewater, however, undergoes an additional stage of treatment, making it suitable for irrigation purposes and decreasing, to some extent, the demand for groundwater resources. Effluent from fish farms has also been recycled by CVWD for use in agricultural irrigation, and duck clubs and fish farm ponds in the lower valley.

Recycled water was first used in the Coachella Valley in 1965. According to CVWD, usage remained below 500 acre-feet per year until the late 1980s, when its usage increased dramatically. During 1999, usage in the Upper Coachella Valley increased to 8,100 acre-feet.

Several wastewater treatment plants in the Palm Desert area are capable of recycling wastewater. The Cook Street wastewater treatment plant, which serves Palm Desert and other communities, has a tertiary water capacity of 10 million gallons per day (mgd). The Cook Street plant is expected to undergo expansion to 15 mgd in the next few years. Another treatment plant located at the intersection of Madison and Avenue 38 is capable of treating 2.5 mgd of reclaimed water per day.

WATER QUALITY

Groundwater quality is dependent upon a number of factors, including the water source, type of water-bearing materials in which the water occurs, water depth, proximity to faults, presence of surface contaminants, and quality of well maintenance. Water quality in the Coachella Valley is generally good to excellent.

Total Dissolved Solids

During the 1930s, total dissolved solids (TDS) concentrations in the upper aquifer of the Coachella Valley groundwater basin were typically less than 250 milligrams per liter (mg/L). By the 1970s, TDS concentrations averaged 300 mg/L, and TDS levels currently average approximately 540 mg/L. High TDS concentrations in the upper aquifer typically occur adjacent to major faults, including the San Andreas Fault Zone. TDS levels in the lower aquifer are also typically high in the vicinity of major faults, including the fault zone separating the Thousand Palms subarea from the Thermal subarea where TDS concentrations exceed 1,000 mg/L.

The water quality of the upper Whitewater River subbasin has also been affected by the importation of Colorado River water, which is about three times higher in total dissolved solids than natural upper Whitewater River groundwater. The following table illustrates the relative quality of surface water recharging the subbasin, including that imported from the Colorado River and other sources of natural recharge.

Table IV-7
Mineral Analysis of Representative Surface Waters

Source	Whitewater River (North)	Snow Creek	Colorado River	Whitewater River (South)
Constituent	epm ¹ /ppm ²	epm/ppm	epm/ppm	epm/ppm
Ca	1.75/35	0.50/10	3.97/79	9.08/181
Mg	0.90/11	0/0	2.31/28	3.74/45
Na	0.62/14	0.47/11	4.78/110	32.58/749
K	0.108/4.2	0.04/1.6	0.11/4.3	0.39/15
Cl	0.1/4	0/0	6.01/213	15.96/566
Total				
Dissolved Solids	201 ppm	55 ppm	727 ppm	2,983 ppm

Notes: ¹ epm = chemical equivalents per million; ² ppm = parts per million by weight

Source: DWR Bulletin No. 108: Coachella Valley Investigation, California Dept. of Water Resources, July 1964.

Nitrates

Another impact on area groundwater is contamination associated with long-term discharge from on-lot septic systems. According to CVWD, nitrate concentrations in the groundwater from some of the Coachella Valley's wells increased from levels of less than 4 mg/L in the 1930s to more than 45 mg/L in the 1970s. These increases are most likely related to the application of fertilizer on agricultural lands and golf courses, and effluent from septic tanks and wastewater treatment plants.

In 1993, the Desert Water Agency published a report entitled "The Effect of Subsurface Wastewater Disposal Systems on Groundwater Within Cathedral City," which indicated that a virus which infects E coli bacteria was found in limited quantities within groundwater supplies in the southern portion of Cathedral City. The impurity was determined to be related to the heavy use of septic systems in the area. Water quality testing indicated that high nitrate levels affected only DWA's monitoring wells. Its production wells, which draw water from depths of over 400 feet below the surface, were unaffected.

The Coachella Valley Water District, Riverside County Health Department and the Regional Water Quality Control Board have also acknowledged that septic tanks have the potential to adversely impact groundwater supplies. The greatest impacts to groundwater quality are expected to occur where septic systems are built in porous soils, serve large populations in high densities and are poorly maintained. Community sewer systems provide excellent protection of groundwater resources, as they provide for the controlled treatment of sewage materials and allow safe groundwater recharge or re-use of treated wastewater.

While much of the development in the City of Palm Desert is connected to the community sewer system, development in outlying areas of the planning area continues to utilize individual septic systems. Scattered residential and commercial sites north of the City continue to rely on private septic systems for the disposal of wastewater. Many of these systems will be abandoned over time, as future development occurs and infrastructure is expanded.

Salts

Salts are also added to the groundwater basin through natural recharge, the importation of water, wastewater percolation, the application of fertilizers, and intrusion from the Salton Sea into the groundwater basin. CVWD estimates that approximately 12,000 tons of salt were added to the groundwater basin in 1936.

By 1999, this figure has risen to approximately 265,000 tons per year, 65% of which originated in the Lower Coachella Valley where agriculture predominates. In farming areas, salt removal can be accomplished via agricultural drains that drain directly into the Salton Sea, and the Coachella Valley Stormwater Channel, which in the lower valley contains agricultural drainage and fish farm effluent.

WATER QUALITY REGULATION

A variety of federal and state legislation has been enacted to assure adequate planning, implementation and enforcement of water quality control efforts. Federal water quality legislation includes the Clean Water Act and the National Environmental Policy Act (NEPA). State statutes and administrative laws applicable to water quality include the California Water Code, California Environmental Quality Act (CEQA), California Code of Regulations, and other codes such as the Health and Safety Code, Fish and Game Code and Public Resources Code.

The California Regional Water Quality Control Board (CRWQCB) implements federal and state laws pertaining to water quality. In the Coachella Valley, the CRWQCB primarily addresses issues regarding agricultural drainage, impacts of geothermal power, and concerns about the Salton Sea, Tahquitz Creek and other sources of surface water. The CRWQCB also monitors leaking fuel storage tanks, illegal discharges of human or animal waste, and sites on which hazardous and toxic materials have been inappropriately disposed.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

The National Pollutant Discharge Elimination System (NPDES) implements the federal Clean Water Act and was adopted in 1990. The NPDES mandates that plans and programs for stormwater management be developed, adopted and implemented to assure that municipalities “effectively prohibit non-storm water discharge into storm drains, and requires controls to reduce the discharge of pollutants from stormwater systems to waters of the United States to the maximum extent possible.” Pollutant control measures are exempt from CEQA analysis.

The City of Palm Desert is a co-permittee with the County of Riverside, CVWD, Riverside County Flood Control and Water Conservation District and all county municipalities within the Whitewater River Basin for NPDES management. The City of Public Works Department manages the city’s NPDES program.

WATER CONSERVATION EFFORTS

With increasing demands on limited water supplies in the Coachella Valley, efforts to reduce per capita consumption are a priority. One of the best opportunities for water conservation is the implementation of water-efficient landscaping design and management. The City has adopted a Water-Efficient Landscape Ordinance, as required by the California Water Conservation in Landscaping Act of 1990 (see Section 24.04 of Palm Desert Municipal Code). The ordinance establishes minimum water-efficient landscape requirements for all new and rehabilitated public and private landscape projects.

The ordinance also requires development project proponents to submit landscape construction plans, grading plans, irrigation design plans and landscape maintenance schedules for review and approval by the Public Works Department. In some cases, landscape irrigation audits and soils analyses are required.

The City is also in the process of preparing a Parking Lot Tree Ordinance, which will identify specific landscaping requirements for parking lots that will also be responsive to water conservation goals. The Public Works Department will be responsible for reviewing proposed parking lot landscaping plans for their conformance with this ordinance. The City also complies with State law which, since 1992, has mandated the installation of low-flush toilets and low-flow showerheads and faucets in new construction.

The Coachella Valley Water District has been instrumental in developing and implementing regional water conservation programs. CVWD offers water audits to farms, golf courses and homeowner associations in an effort to identify wasteful water usage and improve efficiency. It also reviews landscape plans for major housing and commercial developments, and offers landscape workshops and other educational programs to homeowners associations and students.

CVWD maintains two xeriscape gardens to demonstrate the effective use of native plants and efficient irrigation systems. The treatment and use of reclaimed and recycled water has further reduced the adverse impacts of development on groundwater resources.

Water conservation should be second nature to City residents and other desert dwellers. Fortunately, most residents have shown an appreciation for the native desert environment and the excellent opportunity it provides to reduce the use of turf grasses and other types of heavily water-dependent landscaping.

FUTURE DIRECTIONS

Groundwater subbasins do not respect jurisdictional boundaries, and the threat of groundwater depletion or contamination must be viewed from both a regional and local perspective. Effective storm water management will help protect groundwater quality, and protection of the region's major mountain watersheds will help assure and optimize long-term natural recharge to the Whitewater River and other groundwater repositories.

The conservation and wise use of water resources will continue to be a central theme of community development planning in Southern California. The City of Palm Desert has developed policies and programs that encourage and/or require water-efficient landscaping and irrigation design, as well as water-conserving home appliances and fixtures. The City plays an important role in the long-term protection of this essential, finite and valuable resource.

GOALS, POLICIES AND PROGRAMS

Goal

A dependable supply of safe, high-quality domestic water to meet the needs of all segments of the community.

Policy 1

To the greatest extent practical, the City shall continue to encourage the use of drought-tolerant, low water consuming landscaping as a means of reducing overall and per capita water demand.

Program 1.A

Continue to implement the City's Water Efficient Landscape Ordinance to optimize conservation and comply with State Assembly Bill 325 (AB 325), by requiring the use of native and other drought-tolerant planting materials and efficient irrigation systems.

Responsible Agency: Public Works Department, Community Development Department, CVWD
Schedule: Continuous

Program 1.B

The City shall coordinate and cooperate with the Coachella Valley Water District to expand and strengthen educational/public relations programs regarding the importance of water conservation and water-efficient landscaping. Programs may include informational flyers, community workshops, technology transfer fairs and other means of education and information dissemination.

Responsible Agency: Public Works Department, Community Development Department, CVWD
Schedule: Continuous

Policy 2

The City shall encourage, facilitate and/or require the use of water conserving appliances and fixtures in all new development, as required by state law.

Program 2.A

Provide educational information on the use of low-flush toilets, and low-flow showerheads and faucets, and require the application of water-conserving technologies in conformance with Section 17921.3 of the Health and Safety Code, Title 20, California Administrative Code Section 1601(b), and applicable sections of Title 24 of the State Code.

Responsible Agency: Community Development Department, Public Works Department
Schedule: Continuous

Policy 3

The City shall encourage CVWD's continuation and expansion of groundwater recharge efforts and use of tertiary treated wastewater as a means of reducing demand for groundwater resources.

Program 3.A

Coordinate with the Coachella Valley Water District regarding the continued use and future expansion of tertiary treated wastewater treatment and distribution facilities to serve existing and new development projects in the City.

Responsible Agency: Community Development Department, Public Works Department, CVWD

Schedule: Continuous

Policy 4

Encourage or require that all existing and new development be connected to the sewage treatment system of the Coachella Valley Water District.

Program 4.A

Consult and coordinate with CVWD regarding the expansion and funding of sewer service to unconnected areas, and consider approaches and mechanisms that facilitate financing and construction of these facilities.

Responsible Agency: Community Development Department, CVWD

Schedule: Continuous

Policy 5

The City shall provide direction and guidelines for the development of on-site storm water retention facilities consistent with local and regional drainage plans and community design standards.

Program 5.A

Establish and enforce regulations and guidelines for the development and maintenance of project-specific on-site retention/detention basins, which implement the NPDES program, enhance groundwater recharge, complement regional flood control facilities, and address applicable community design policies.

Responsible Agency: Public Works Department, Community Development Department

Schedule: Continuous

Policy 6

Coordinate with the Coachella Valley Water District, the California Regional Water Quality Control Board and other appropriate agencies to share information on potential groundwater contaminating sources and management of same.

Program 6.A

Develop and maintain a system to share records and technical information with CVWD, CRWQCB and other appropriate agencies regarding all sites that have the potential to contaminate groundwater resources serving the City. Cooperate and encourage the development of effective mitigation strategies to address potential contamination issues

Responsible Agency: Community Development Department, Public Works Department, CVWD, California Regional Water Quality Control Board

Schedule: Continuous

Policy 7

The City shall evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources, and shall confer with other appropriate agencies, as necessary, to assure adequate review.

Policy 8

The City shall consult with the Coachella Valley Water District and other jurisdictions to jointly coordinate urban development and other water users within the long-term valley water budget.

Program 8A

The City shall actively encourage and shall participate in the development of water management and conservation strategies, coordinating with CVAG and its member jurisdictions, the Coachella Valley Water District, Desert Water Agency and Mission Springs Water District on water supply and conservation programs. Programs may include refinements to water budgets, resource cost analyses, conservation technology rebates, auditing services and others.

Responsible Agency: Community Development and Public Works departments, CVAG and Member Jurisdictions, Valley Water Districts

Schedule: 2004-05; Continuous

AIR QUALITY ELEMENT

PURPOSE

The purpose of the Air Quality Element is to describe physical and regulatory conditions associated with and affecting air quality, and to identify goals, policies and programs that balance the City's management of land use, circulation and other regulatory actions with their potential effects on local and regional air quality. It is the intent of this Element and the policies and programs set forth herein to help the community to meet ambient air quality standards established by the U.S. Environmental Protection Agency and the California Air Resources Board.

BACKGROUND

The Air Quality Element is directly related to the Land Use and Circulation Elements, and to a lesser degree is also related to the Health Services and Emergency Preparedness Elements. Community and regional air quality is directly affected by the types, intensities and patterns of land uses, and the extent and efficiency of the City's transportation system. Similarly, the Air Quality Element is associated with the amount of open space planned for preservation in the Open Space and Conservation Element. Important to this Element are the number, length and timing of traffic trips that are discussed in the Circulation Element. Air quality is also associated with the Economic Development Element, the goals of which are indirectly associated with the protection of air quality and other natural resources important to the local economy.

REGULATORY ENVIRONMENT

Air quality is one of the most central issues concerning public health and welfare. Although air quality improvements have occurred in Southern California and the Coachella Valley over the past two decades, the region continues to experience significant air pollution problems, especially those associated with suspended particulates. Both the federal and state governments have established air quality standards and regulations pertaining to a variety of air pollutants and their control.

The federal Clean Air Act (CAA), enforced by the U.S. Environmental Protection Agency and last amended in 1990, is intended to ensure that all Americans have the same basic health and environmental protections with regard to air quality. The CAA establishes minimum air pollution standards, but allows states to enact and enforce stronger standards, and delegates much of the responsibility for carrying out the CAA to state air pollution control agencies.

To comply with the requirements of the CAA for pollution levels that exceed federal standards, each state is required to develop a State Implementation Plan (SIP), which is a description of the state regulations that will be used to improve air quality in polluted areas. Through the development and implementation of SIPs, the CAA establishes control measures and deadlines by which its ambient air quality standards must be met in specific geographic areas.

The California State Legislature enacted Assembly Bill 2595, also known as the California Clean Air Act (CCAA), in 1988 and amended it in 1992. The purpose of this legislation is to assure the protection of the future health and welfare of the people of the State of California and protection of the State's environment and economy, independent of federal government actions or policy directions. The ambient air quality standards set forth in the CCAA, and the deadlines for achieving these standards, are generally more stringent than those established by the federal CAA. The California Air Resources Board (CARB) has been entrusted as an overseer of the CCAA and advises and evaluates the efforts of local and regional air pollution control agencies and districts.

The City of Palm Desert is located within the Salton Sea Air Basin (SSAB), a geographic area regulated by the South Coast Air Quality Management District (SCAQMD). The Salton Sea Air Basin is generally bounded on the west by the San Jacinto Mountains, and on the east by the eastern edge of the Coachella Valley. The SCAQMD is responsible for leading the regional effort to attain state and national air quality standards, and for the development of the regional Air Quality Management Plan (AQMP), a multi-tier effort to regulate pollutant emissions from a variety of sources. The 1997 AQMP is intended to satisfy the planning requirements of both the federal Clean Air Act and the California Clean Air Act. The SCAQMD is currently (2003) in the final draft phase of updating the AQMP.

As a member of the Coachella Valley Association of Governments (CVAG), the City of Palm Desert is also involved in the regional management of air quality. Air pollutants of local and regional concern are ozone and suspended particulate matter of 10 microns in size or smaller (PM₁₀). The 1990 "State Implementation Plan for PM₁₀ in the Coachella Valley" was jointly developed by the SCAQMD, CVAG and its member cities, and approved by the U.S. EPA, as a mechanism for reducing suspended particulates, especially fugitive dust emissions, in the Coachella Valley. The prevailing conditions that have spurred the development and implementation of this plan are discussed in more detail below.

PRIMARY AND SECONDARY POLLUTANTS

Ambient air pollutants are generally classified into two categories: primary and secondary pollutants. Primary pollutants are those that are a direct consequence of pollution releases, including those associated with energy production and utilization. These pollutants typically affect only local areas and do not undergo chemical modification or further dispersion. Primary pollutants and their sources are mostly a direct consequence of the combustion of petroleum and other fossil fuels resulting in the production of oxides of carbon, sulfur, nitrogen, a number of reactive hydrocarbons, and suspended particulates.

Secondary pollutants are those that undergo chemical changes after emission. These pollutants disperse and undergo chemical changes under conditions of high ambient temperatures and high rates of solar insolation. Principal secondary pollutants are termed oxidants and include ozone, peroxy nitrates, nitrogen dioxide and chemical aerosols.

STATE AND FEDERAL AIR QUALITY STANDARDS

State and federal ambient air quality standards for ozone, particulate matter and other primary and secondary pollutants are shown in the following table. State standards are generally more restrictive than federal standards.

Table IV-8
State and Federal Ambient Air Quality Standards

Pollutant	State Standards		Federal Standards	
	Averaging Time	Concentration	Averaging Time	Concentration
Ozone	1 hour	0.09 ppm	1 hour	0.12 ppm
Carbon Monoxide	1 hour	20.0 ppm	1 hour	35.0 ppm
	8 hours	9.0 ppm	8 hours	9.0 ppm
Nitrogen Dioxide	1 hour	0.25 ppm	AAM	0.053 ppm
Sulfur Dioxide	1 hour	0.25 ppm	AAM	0.03 ppm
	24 hours	0.04 ppm	24 hours	0.14 ppm
Suspended				
Particulate	24 hours	50 $\mu\text{g}/\text{m}^3$	24 hours	150 $\mu\text{g}/\text{m}^3$
Matter (PM ₁₀)	AGM	30 $\mu\text{g}/\text{m}^3$	AAM	50 $\mu\text{g}/\text{m}^3$

Notes: ppm = parts per million; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter of air

AAM = Annual Arithmetic Mean ; AGM = Annual Geometric Mean

Source: "1997 Air Quality Management Plan," South Coast Air Quality Management District

CLIMATIC CONDITIONS IN THE COACHELLA VALLEY

The Coachella Valley is located within a meteorologically and geographically unique area. The surrounding mountains isolate the valley from coastal influences from the west, and create a hot, low-lying desert environment. The valley is also susceptible to air inversions, in which a layer of stagnant air is trapped near the ground where it is further loaded with pollutants. This process, when combined with chemical aerosols and other pollutants emitted by automobiles, furnaces and other sources can result in considerable haziness and increased pollutant levels.

The Coachella Valley is also subject to strong and sustained winds. Each year, winter rains cause erosion of the adjacent mountains, and water runoff produces, transports and sorts substantial deposits of gravel and sand throughout the major drainage areas of the valley. As the desert floor heats up it creates a thermal low-pressure area, which draws cooler, denser coastal air masses through the narrow San Geronio Pass, generating strong winds that cross the extensive alluvial plains of the valley.

These winds pick up and transport large quantities of sand and dust, depositing these materials on buildings, fabrics and automobiles, thereby reducing visibility and damaging property. Extensive wind-borne soil can dirty streets, pit windshields and damage landscaping. Dust on vegetation can interfere with plant respiration and stunt plant growth. The adverse health effects in humans can be severe and include reduced lung capacity and functioning.

REGIONAL POLLUTANTS OF CONCERN

Compared to other Southern California communities, the City of Palm Desert essentially has good air quality. However, relatively high levels of ozone and PM₁₀, which are described below, are the primary pollutants of concern in the Palm Desert area and represent the greatest threats to air quality and human health in the Coachella Valley.

Ozone (O₃)

Ozone is a pungent, colorless, toxic gas that is the main component of photochemical smog. It is formed when byproducts of internal combustion engines react in the presence of ultraviolet sunlight. This is a daily occurrence associated primarily with emissions from motor vehicles. Excessive exposure to ozone can result in diminished breathing capacity, increased sensitivity to infections, and inflammation of lung tissue.

The Coachella Valley has a history of occasionally exceeding state and federal ozone standards, although the number of days and months exceeding the federal one-hour standard has dropped steadily over the past decade. The Coachella Valley is classified as a “severe-17” ozone non-attainment area under the federal Clean Air Act. Under current regulatory plans, the area must comply with federal ozone standards by November 15, 2007.

Although some ozone is produced within the City of Palm Desert and the Coachella Valley, most ozone pollutants are transported into the Coachella Valley by coastal winds from Los Angeles County and the Riverside and San Bernardino air basins. Local monitoring for ozone indicates that federal ozone exceedances in the Coachella Valley are largely the result of pollutant transport from the South Coast Air Basin, through the Banning Pass, into the Coachella Valley. Although it is difficult to quantify the total amount of ozone pollutants contributed by other regions, improved air quality in the Coachella Valley is partly dependent upon reduced ozone emissions in the South Coast Air Basin.

Particulate Matter (PM₁₀)

Small, suspended particles, including dust, sand, metallic and mineral substances, road-surfacing materials, pollen, smoke, fumes and aerosols are generally referred to as particulate matter. These various particles are categorized by settling characteristics, and those that are ten microns or smaller in diameter are referred to as “PM₁₀.” Most of the precursors to PM₁₀ in the Palm Desert area are generated by direct particle erosion and fragmentation associated with the natural process of sand migration in the Coachella Valley. Grading and other activities associated with construction are also significant contributors to blowing sand and fugitive dust generation. These eroded particles may be further pulverized by motor vehicles on roadways, where they are re-suspended in the air. PM₁₀ particles can pass through the filtering system of the lungs, and directly irritate lung tissues, potentially resulting in serious health problems.

The Coachella Valley has a history of elevated PM₁₀ levels, which are closely associated with fugitive dust emissions from construction activities and the valley's natural wind processes. In 1990, the South Coast Air Quality Management District adopted the "State Implementation Plan for PM₁₀ for the Coachella Valley" (90-CVSIP), which outlined "reasonably available control measures" for PM₁₀ and established a future attainment date for areas previously unable to meet federal PM₁₀ standards.

In January 1993, the Coachella Valley was reclassified from a "moderate" to "serious" non-attainment area for PM₁₀ by the U.S. EPA. The Coachella Valley Association of Governments (CVAG) and its member cities worked closely to implement the measures set forth in the CV-SIP, including the adoption of city-based dust control ordinances, street cleaning programs, and the use of chemical stabilizers, site watering techniques and landscape treatments designed to reduce fugitive dust.

Although the Coachella Valley achieved federal PM₁₀ standards in 1996, attainment "status" requires that the region achieve these standards for three consecutive years. In 1999, federal PM₁₀ standards were exceeded once again. The region continues to be designated a "serious" non-attainment area for PM₁₀, with construction activity representing the most significant source of fugitive dust emissions.

In an effort to remedy this situation, the SCAQMD recently (2001) developed "Guidelines for Dust Control Plan Review in the Coachella Valley," which are intended to supplement local dust control ordinances. Should the region continue to fall short of federal PM₁₀ standards, the U.S. EPA could impose more stringent regulations or sanctions on local jurisdictions.

Other Pollutants

Nitric oxide (NO) and nitrogen dioxide (NO₂), commonly referred to as NO_x, are the two most significant oxides of nitrogen classified as air pollutants. NO_x is formed as a byproduct of combustion, and it may be largely imported to the Coachella Valley from air basins to the west or may increase with local air inversions. Short-term exposure to nitrogen dioxide can result in airway contraction in healthy individuals and diminished lung capacity in individuals with asthma or chronic obstructive pulmonary disease.

Carbon monoxide (CO) is a colorless, odorless, toxic gas that is generally produced by the incomplete combustion of carbon containing fuels. Carbon monoxide passes through the lungs directly into the blood stream, binding with hemoproteins and reducing the amount of oxygen reaching the vital organs, such as the heart, brain and tissues. High levels of carbon monoxide are generally found along heavily traveled roadways during periods of limited air movement.

Sulfur dioxide is a colorless, pungent, extremely irritating gas that results from the combustion of high-sulfur content fuels, such as coal and oil. Short-term exposure to sulfur dioxide can result in airway constriction and severe breathing difficulties in asthmatics. High levels of exposure can cause lung tissue damage and fluid accumulation in the lungs.

Lead (Pb) occurs in the atmosphere as particulate matter resulting from leaded gasoline and the manufacturing of batteries, paint, ink and ammunition. Exposure to lead can result in anemia, kidney disease, gastrointestinal dysfunction, and in severe cases, neuromuscular and neurological disorders. The elimination of leaded gasoline in recent years has reduced the hazards association with airborne lead.

CITY'S FUGITIVE DUST CONTROL ORDINANCE

To reduce the impacts of local fugitive dust and PM₁₀ emissions, the City of Palm Desert adopted a Fugitive Dust (PM₁₀) Control Ordinance (Chapter 24.12 of the Palm Desert City Municipal Code). The ordinance establishes minimum dust control requirements for construction and demolition activities and other specified land uses. The ordinance requires that reasonably available control measures be implemented such that fugitive dust emissions are in compliance with South Coast Air Quality Management District regulations. Dust control measures set forth in the ordinance include the following: the preparation and approval of a fugitive dust mitigation plan, reductions in vehicular speeds on unpaved roads and at construction sites, the application of chemical and/or vegetative dust suppressants and stabilizers, paving of parking lots and roadways, installation of wind fencing, revegetation of disturbed areas, and implementation of street and vehicle cleaning programs at construction sites.

The City will not issue a grading or demolition permit without an approved fugitive dust mitigation plan (several land uses, including agricultural operations, are exempt from this and other requirements of the ordinance). The City has the authority to monitor and inspect grading and demolition activities to ensure that the measures identified in each fugitive dust mitigation plan are properly implemented.

Local PM₁₀ Air Quality Inspector Program

In order to provide more effective and locally based inspection and developer education effort, the Coachella Valley Association of Governments, SCAQMD and the Building Industry Association (BIA) recently (2001) approved the hiring of a PM₁₀ Air Quality Inspector, who will be paid by SCAQMD but will work out of CVAG offices. The inspector's role will not be to issue citations for violations, but rather to monitor and identify development activities that are not meeting emission stands, and to work to educate developers and cities on meeting PM₁₀ standards.

Employee Commute Program

The SCAQMD has also developed and implemented Rule 2202, which is designed to reduce vehicular emissions associated with employee commutes at major employers by providing a menu of emission-reducing options. The rule applies to major businesses or institutions that employ 250 or more full or part-time positions and is meant to help major employers comply with federal and state Clean Air Act requirements, and applicable portions of the state Health and Safety Code. The SCAQMD oversees the implementation of this program but may delegate this responsibility to local jurisdictions if they have adopted comparable or more stringent Rule 2202-equivalent ordinances and can demonstrate having adequate resources to implement the local ordinance.

ALTERNATIVE ENERGY SOURCES

The City actively supports and participated in the use of clean, alternative energy sources for transportation. The City has acquired grant funding for the purchase of vehicles that operate on compressed natural gas (CNG) and the establishment of an electric vehicle charging station to service its vehicle fleet. The City also owns and operates the Shopper Hopper Express, an electric bus that provides public transportation services to the El Paseo and Westfield Shoppingtown commercial areas. The continued and expanded use of CNG, electric and other alternative fuels will reduce motor vehicle emissions in Palm Desert and have a positive impact on local and regional air quality.

AIR QUALITY MONITORING STATIONS

To further facilitate the management of air pollution, SCAQMD operates and maintains regional air quality monitoring stations at numerous locations throughout its jurisdiction. The City of Palm Desert is located within Source Receptor Area (SRA 30), which includes two monitoring stations, one at the Palm Springs International Airport and one in the City of Indio. With greater attention being dedicated to particulate matter, monitoring for PM₁₀ has been expanded both through temporary research and field data collection systems, as well as the siting of permanent wind speed and pollutant measuring devices. For PM₁₀, samples are collected every six days over a period of 24-hours, yielding about 60 samples per year. These samples are also regularly analysed for sulfates and nitrates. Exceedances of state and federal PM₁₀ standards are usually expressed in terms of the percent of days sampled.

SENSITIVE RECEPTORS

There is widespread concern about the serious detrimental effects caused by even the most common air pollutants. Ozone and particulates pose the most significant threat to health and property in the Coachella Valley. Sensitive receptors are defined as those persons or land uses that may be subject to respiratory stress and/or significant adverse impact as a result of air pollutant exposure. The region's high median age implies that a major portion of the valley's residents is particularly susceptible to respiratory distress from the two principal pollutants of concern, ozone and PM₁₀. Children are also especially sensitive to the effects of high levels of these pollutants. Sensitive land uses include hospitals, nursing homes, schools, parks, and residential and transient lodging facilities.

FUTURE DIRECTIONS

The South Coast Air Quality Management District, CVAG and the City of Palm Desert share the responsibility for monitoring air pollutant levels and regulating air pollution sources. The issues addressed in the Air Quality Element are part of those set forth in the California Government Code, Section 65302(d), which describes the requirements for the Circulation Element, as well as the requirement that existing air quality levels and air quality trends be analyzed. In addition, the California Clean Air Act (Assembly Bill 2595) necessitates the development of air quality policies and programs that protect and preserve the environment and general public from harmful air pollutants.

GOALS, POLICIES AND PROGRAMS

Goal

Preservation and enhancement of local and regional air quality for the protection of the health and welfare of the community.

Policy 1

The General Plan Land Use Element shall be developed and maintained to assure that air pollution point sources, such as manufacturing facilities, are located an appropriate distance from residential areas and other sensitive land uses and receptors.

Policy 2

All development proposals brought to the City shall be reviewed for potential adverse effects on air quality and shall be required to mitigate any potentially significant impacts.

Program 2.A

The City shall conduct an initial study and, as appropriate, require detailed air quality analyses for all applications which have the potential to adversely affect air quality.

Responsible Agency: Community Development Department

Schedule: Continuous

Program 2.B

Projects with the potential to generate significant levels of air pollutants, such as manufacturing facilities and site development operations, shall be required by the City to incorporate air pollution mitigation into their project design and operations, and to utilize the most advanced technological methods feasible. Mitigation measures and dust control plans shall be approved by the City prior to the issuance of grading, construction, demolition or other permits.

Responsible Agency: Community Development Department, Building & Safety Department, Planning Commission, City Council

Schedule: Continuous

Program 2.C

The City shall coordinate with the SCAQMD and CVAG to assure adequate monitoring of the effectiveness of transportation management programs of employers, including use of Sunline and other public transportation, coordinated carpooling, off-peak shift times, employee flex-time and other components. As future demand warrants, the City shall promote and support the development of a Park-and-Ride program to decrease existing and future traffic levels within the community.

Responsible Agency: SCAQMD, CVAG and Community Development Department, Palm Desert Chamber of Commerce, City Council, Sunline Transit Agency

Schedule: Continuous

Program 2.D

Where practical, particularly in major project planning, the City shall encourage the development of buffer zones between sensitive receptors and point source emitters such as highways and industrial sources.

Responsible Agency: Community Development Department

Schedule: Continuous

Policy 3

The City shall coordinate and cooperate with CVAG and SCAQMD in the ongoing monitoring and management of major pollutants affecting the City and region, with particular focus on PM₁₀, and shall provide all required reporting to be ultimately included in SCAQMD's annual report.

Program 3.A

Continue to participate, through SCAQMD and CVAG, in the monitoring of all air pollutants of regional concern on a continuous basis, and maintain records of trends in regional air quality.

Responsible Agency: Community Development Department, SCAQMD, CVAG

Schedule: Continuous

Program 3.B

Provide consistent and effective code enforcement of construction, grading and demolition activities, on-going land uses, and off-road vehicle use to assure that the generation of blowing sand, fugitive dust, smoke and other particulate emissions are eliminated or minimized.

Responsible Agency: Building & Safety Department

Schedule: Continuous

Program 3.C

Continue to implement and enforce the Fugitive Dust Control Ordinance to reduce PM₁₀ emissions to the greatest extent practical.

Responsible Agency: Community Development Department, Building & Safety Department

Schedule: Continuous

Program 3.D

Continue to provide an effective street sweeping program that combats the cumulative impacts of blowsand, transportation-related dust generation, and nuisance dust that result from natural windstorm events.

Responsible Agency: Public Works Department, Sunline Transit Agency

Schedule: Continuous

Policy 4

The City shall promote the appropriate and cost-effective development and coordination of mass transit/shuttle service linking residential, shopping, resort and commercial centers of the City, and shall participate with CVAG, SCAG, Sunline Transit Agency and other public and private service providers to improve and optimize regional transportation services.

Policy 5

The General Plan Circulation Element shall create and maintain a diversified transportation system that maximizes system efficiencies, minimizes vehicle miles traveled, and reduces the impact of motor vehicles on local air quality.

Program 5.A

The City shall continue to promote the development and use of pedestrian-oriented retail centers, as well as community-wide multi-use trails, dedicated bike lanes, golf cart paths, and other desirable alternatives to motor vehicle traffic. These components shall be integrated and periodically updated in the General Plan Circulation Element.

Responsible Agency: Community Development Department, Public Works Department

Schedule: Continuous

Program 5.B

Consult and coordinate with CVAG and member jurisdictions to implement an integrated, multiple use trail network that safely and efficiently connects major residential, commercial and recreational centers in the Coachella Valley and also provides an adequate system of Electric Vehicle Charging Stations. This network shall provide opportunities for pedestrian, bicycle and golf cart uses.

Responsible Agency: Community Development Department, CVAG and Member Jurisdictions, Sunline Transit Agency

Schedule: 2004-05

Program 5.C

The City shall coordinate with the Sunline Transit Agency and CVAG to assure the provision of bus-mounted bike racks to enhance and optimize the use of bicycles by riders of the Sunline bus system.

Responsible Agency: Community development Department, CVAG, Sunline Transit Agency

Schedule: 2004-05

Policy 6

The City shall encourage the use of clean alternative energy sources for transportation, heating and cooling, to the greatest extent practical.

Program 6.A

The City shall expand its use of compressed natural gas (CNG) and electric powered vehicles, as well as other alternative and/or renewable energy sources to the greatest extent possible, and shall encourage and coordinate with its franchise service providers and other public and private service providers to do same.

Responsible Agency: Administrative Services Department, Public Works Department, Sunline Transit Agency, public and private service providers

Schedule: Continuous

Program 6.B

The City shall encourage the incorporation of energy-efficient design measures into site plans, including appropriate site orientation to assure solar access, and the use of shade and windbreak trees, to enhance the use of alternative energy systems and to reduce the need for excessive heating and cooling.

Responsible Agency: Community Development Department

Schedule: Continuous

Program 6.C

The City shall continue to coordinate with and support the efforts of Sunline Transit Agency, College of the Desert and CVAG in the development of alternative fuels and energy systems, and associated public infrastructure that operate or rely on clean and/or renewable energy sources.

Responsible Agency: Administrative Services department, Public Works Department, Sunline Transit Agency, CVAG and College of the Desert

Schedule: Continuous

ENERGY AND MINERAL RESOURCES ELEMENT

PURPOSE

The purpose of the Energy and Mineral Resources Element is to direct the City in the long-term management and thoughtful use of energy and mineral resources. Mineral and energy resources are integral parts of the community and local economy. They provide essential parts of the framework that enables development, and their availability influences the pattern of land uses as well as the direction and intensity of growth in an area. Minerals and most conventional energy resources are finite being consumed by their use, and are in increasingly limited supply. Furthermore, energy shortages and escalating utility rates in California have become a serious issue, placing considerable burdens on individuals, the entire community and the region. This Element addresses the community's dependence on these limited resources and the need for local and regional energy policy. Basic policy elements include greater conservation, and increased energy efficiency. A major shift toward reliable energy resources, including greater use of renewable energy resources are also important policy issues. In this regard, the Element sets forth goals, policies and programs that provide opportunities for more local control of energy production and distribution.

Included in this Element are descriptions of conventional and renewable energy resources, quantifications of energy resource use, as well as the location and identification of mineral resources. Policies and programs serve as tools that the City can use to help insure the availability, conservation and management of these resources, while encouraging the development of balanced, innovative and long-term solutions to energy efficiency, and the expanded use of renewable resources.

BACKGROUND

The Energy and Mineral Resources Element is directly related to several other elements in the General Plan, including Land Use, Open Space and Conservation, Circulation, Air Quality, Housing and Economic Development and other elements. A wide range of state and federal legislation and regulation are applicable to energy and mineral resource issues, including California Government Code Section 65560(b), which directs cities and counties to provide for the preservation of energy and mineral resource areas, as well as other resources. As discussed below, these requirements have direct application to the City and its Sphere-of-Influence, where important mineral and energy resources have already been identified and developed. Government Code Section 65302(d) requires that General Plans include elements that address issues of resource conservation, and set forth the areas that may be appropriate to address, including reclamation, prevention of resource degradation and preservation for long-term use.

The regulation of mineral resources is also extensively addressed in the Public Resources Code, including Sections 2762, 2763 and 2764. Government Code Section 65303 allows the local jurisdiction to add other resource conservation/management subjects that, in its opinion, relate to the physical development of the City.

The State Solar Rights Act and Solar Shade Control Act, meant to enhance opportunities for the use of solar energy, and Title 24 building standards, promulgated to reduce unnecessary energy use in new or substantially remodeled construction, are some of the state regulations affecting mineral and energy resources.

MINERAL RESOURCES

For the purpose of this element, mineral resources are defined as naturally occurring solid crystalline substances that consist of chemical elements or compounds formed from inorganic processes and organic substances, which are considered to be an economically valuable commodity. Mineral resources include iron, sand and gravel, limestone, and coal, but not natural gas and petroleum, which are generally considered to be energy resources. The importance of mineral deposits and their utilization is dependent upon their relative abundance and importance in commerce and industry. A deposit of rare or important industrial materials require careful consideration before their availability is precluded by urban development.

The nonrenewable character of mineral deposits requires careful and efficient development to prevent unnecessary waste or exploitation of these resources. The excavation of mineral resources can also have significant environmental impacts that may only be marginally mitigated by surface mining reclamation plans. Evidence of mining, particularly surface mining in desert areas, can remain for centuries if not properly reclaimed through redistribution of unmarketable (waste) materials, re-contouring, fine grading and revegetation. The Surface Mining and Reclamation Act (SMARA) was developed to assure the preservation of mineral resources while concurrently addressing the need for protecting the environment.

Sand and gravel, collectively referred to as aggregate, is the primary mineral resource that is actively being developed in the Coachella Valley. Weathering, erosion and other geological processes fill the desert floor with materials from the surrounding mountains and hills, forming significant deposits of these mineral resources throughout the Valley. Aggregate (and associated components) is an important building and construction material, generally providing 80% to 100% of material volume for asphalt, concrete, road base, stucco and plaster. Many aggregate resources, including concrete, asphalt, and road base, are currently being recycled as new base, and new concrete and asphalt products.

Locally Important Mineral Resources

In 1988, the State of California Department of Conservation, Division of Mines and Geology, under direction of the Surface Mining and Reclamation Act, released a report identifying aggregate materials in the Palm Springs Production Consumption Region, which includes the City of Palm Desert and its planning area.

The primary focus of the report was to identify regionally significant mineral deposits in an effort to conserve and develop them; and to help in anticipating aggregate production needs of the region.

Three mineral resource categories are applicable to the City and the planning area:

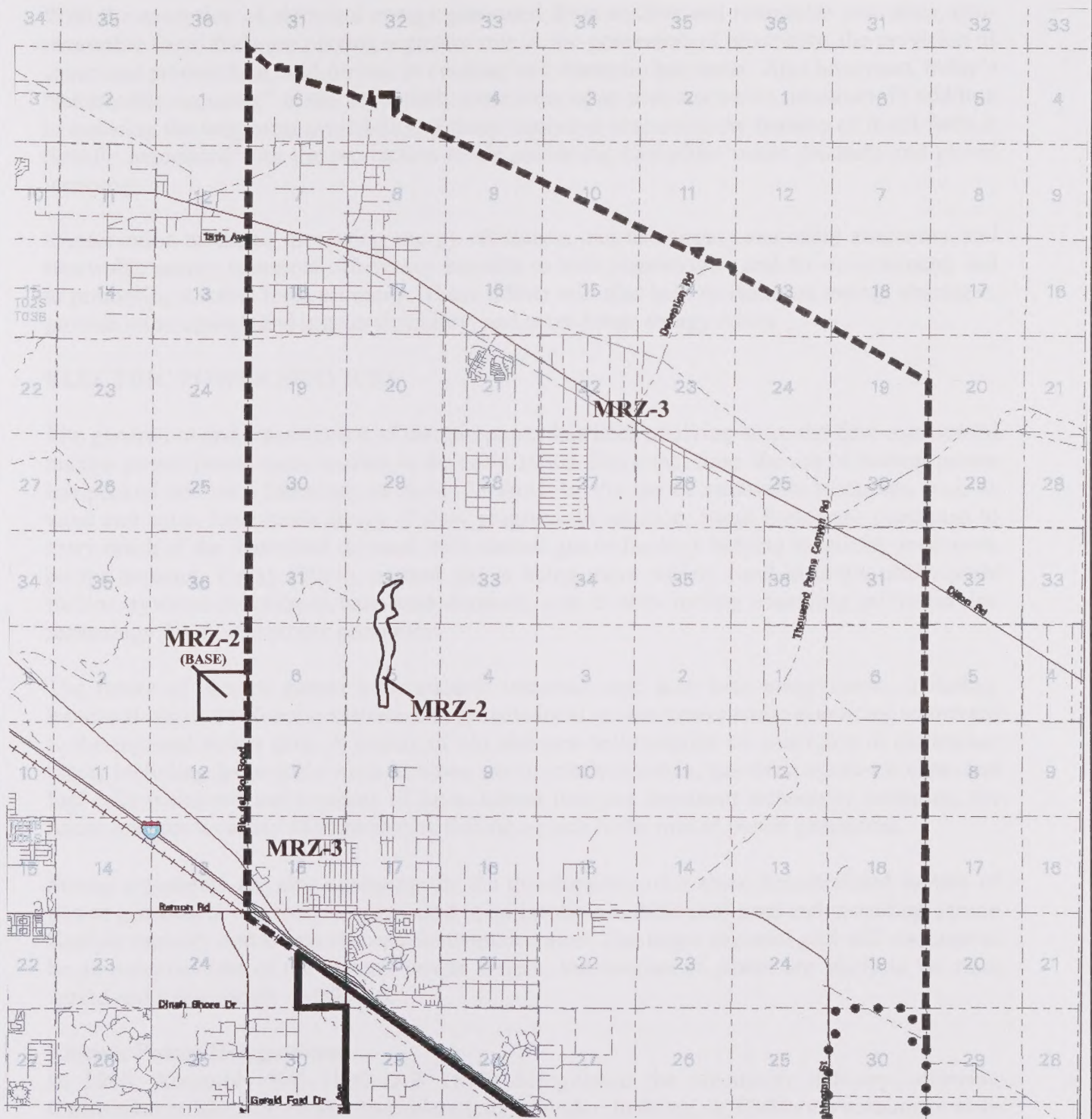
- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists.
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.

As shown in Exhibit IV-7, an area of MRZ-1 is identified in the northern planning area. An area of MRZ-2 occurs north of the community of Thousand Palms, in the City's planning area. This designation applies to a 27-acre area in an alluvial fan of a small drainage along the Indio Hills. The deposit contains approximately 2.1 million tons of aggregate resources, and is currently (2001) being developed by A-One Aggregate Company and E.L. Yeager Construction Company. The balance of the City and its planning area are designated as MRZ-3.

ENERGY RESOURCES

Energy resources are integral in residential, commercial and industrial land uses and especially in transportation. However, the majority of energy comes from non-renewable resources, which include oil, coal and natural gas. Not only are these resources finite and limited, their development and use are damaging to the environment, also extolling a large economic cost. Moreover, energy resources are generally not under local control or management and therefore are not always readily available or dependable. Energy shortages, relatively high-energy costs, unpredictable energy supplies, and uncertainties about future availability of resources have made energy production and consumption an important issue.

In the Coachella Valley, estimates of consumption of electricity and natural gas on a per capita or per household basis in the Coachella Valley are derived from a variety of sources, including utility providers. A variety of factors affect rates of energy use, with cost playing the greatest role. The South Coast Air Quality Management District (SCAQMD), in cooperation with utilities, has also developed a set of assumptions to define the general level of energy consumption on a use basis. Residential energy users, on average utilize approximately 79,000 cubic feet of natural gas, and 6,000-kilowatt hours (Kwh) per unit per year. Commercial energy consumers use approximately 35 cubic feet of natural gas per square foot per year and anywhere from 9.95 to 53.3-kilowatt hours (Kwh) per square foot per year depending on the type of commercial use.



SOURCE: Miner Land Classification Map
Palm Springs P-C Region
California Division of Mines and Geology, 1987

Legend

- • • • City Sphere of Influence
- City Limits
- - - - General Plan Planning Area



TERRA NOVA®
Planning & Research, Inc.

Palm Desert General Plan Mineral Resource Zones



Exhibit

IV-7

With the exception of electrical energy generated from nuclear and renewable resources, non-renewable fossil fuels are playing a greater role in the generation of electricity, the provision of space and process heat, and for use in cooking and domestic hot water. Also important, today's "automobile economy" is still essentially dependent upon non-renewable resources. In addition to reducing the long-term availability of these important resources, the burning of fossil fuels is directly associated with the production of air pollutants, hazardous waste products and global warming.

Conservation methods, increasing energy efficiency, and developing and using alternative and renewable energy resources offer many benefits to both communities and the environment, and to promoting a stable local economy. These efforts will also help to eliminate energy shortages, provide more options and greater flexibility, and avert future energy crises.

ELECTRIC POWER SERVICES

The generation and transmission of electric power has been evolving since the first commercial nuclear power plants came on-line in the early 1950s. Since that time, the use of nuclear power has peaked and then fallen out of favor. Meanwhile, the use of renewable resources, such as wind and solar, have made steady if slow progress. In addition, fossil fuels have continued to carry much of the base-load demand, with natural gas technology helping to quickly meet peak power demand. Today (2001), natural gas is being more widely used in large, utility-scale turbine systems to address base-load demand, and is also fueling emerging micro-turbine technology for on-site power generation.

The future of electric power generation is uncertain and may take many forms, including increased use of small-scale systems that provide local on-site power while also being connected to the regional power grid. A variety of old and new technologies are emerging in the market place, including large-scale wind turbines, photovoltaic systems, gas-fired micro-turbines, and fuel cells which can use a variety of fuels. Rather than one dominant technology emerging, the future may see a variety of technologies finding a place in the mix of power generators.

Strong arguments are also emerging for the development of a more decentralized system of power generation, one increasingly based upon locally available resources and providing a more flexible capacity that is less susceptible to interruption. The larger regional grid will continue to be an essential part of the electric power system, but sources of power are likely to be more varied and more widely distributed.

Electric Power Deregulation

In 1998, Assembly Bill 1890 (AB 1890) deregulated the electricity industry, allowing Californian residents to choose their electricity provider. In doing so, California consumers were able to decide what kind of energy to support, including electricity generated from renewable energy resources. In addition to opening up the energy market, AB 1890 also created a new statewide renewable energy program. The program collected \$540 million from Southern California Edison, Pacific Gas and Electric Company and San Diego Gas and Electric from 1998 to 2001, which is used to fund existing, new and emerging renewable technologies.

Deregulation also resulted in the sale of power generating facilities by the state's major utilities. It was believed that this approach would increase competition among generators and lower the cost of electric power. However, a number of factors have conspired in the beginning of the decade resulting in expensive and unreliable sources of electricity, including greater than expected demand, lower rainfall and less available hydroelectric power, increased cost of natural gas for power generation, and the uncoordinated shutdown of power plants for maintenance. The new regulatory environment may also have provided opportunities for the new owners of power generation capacity to take advantage of circumstances and to reap significantly greater profits than was typical of integrated utility-owned generators.

Finally, deregulation has put the economic viability of the restructured utilities at risk by allowing the wholesale power generators to charge what they wish, while capping the rates that the retail power distributors could charge their customers. The gap between wholesale prices and retail caps generated billions of dollars in debt for the restructured utilities.

As deregulation of electric power continues to unfold, the City and its partners in regional government will have important opportunities to help shape the local electricity market through conservation initiatives, development and regulation of local power generation, and by influencing energy policy on a regional and state level.

The Palm Desert planning area is served by two electric power providers, Southern California Edison (SCE) and the Imperial Irrigation District (IID). Each is briefly discussed below.

Southern California Edison

Southern California Edison (SCE) is the primary electric service provider in the City and planning area. Its service area includes all but a small portion of the incorporated City. Within both SCE and IID systems, high voltage transmission lines deliver power to the substation where power is stepped down and distributed through lower voltage lines. Individual homes and businesses then receive power through a final transformer, which brings voltages down to more safe and useful levels.

SCE offers residential users a variety of rebates for the installation of energy efficient equipment. Several rebates offered by SCE include refunds for the replacement of "through-the-wall" heat pumps; the installation or replacement of central electric heat pumps; and the replacement of heat pump water heaters to name a few. SCE's Automatic Power Shift program allows substantial savings from June through September, in exchange for allowing SCE to remotely cycle-off selected air conditioning units during peak periods of heavy use and potential power outages.

Imperial Irrigation District

Imperial Irrigation District (IID) is a nonprofit community owned utility that serves customers in Imperial County and parts of Riverside and San Diego counties. Within the planning area, IID provides electric services to Avondale Country Club, Bermuda Dunes, Del Webb Sun City, Thousand Palms and the eastern portion of Sky Valley. Due to its organization, IID is able to offer electric power rates that are significantly less than those of SCE.

IID is also not subject to the regulations of the California Public Utilities Commission and has substantially greater flexibility in establishing power rates and negotiating with individual users. The possibility of expanding IID's service area to encompass more or all of the Palm Desert planning area, as well as other areas of the Coachella Valley, are being explored. A variety of other strategies that can address the current instabilities in the electric power market are also being investigated.

Electric Power: Next Steps

The City has investigated a variety of ways to positively influence electric power supplies and rates for the community. It has also been and will continue to be a leader in the development, promotion and implementation of innovative energy strategies and technologies that address electricity generation and use. One of the first and by far most cost-effective strategies is enhanced efficiencies and conservation. It is substantially easier to conserve energy than to produce more. Conservation also directly addresses environmental issues associated with electric energy. The City's continued efforts in alternative fuels, advanced technologies and energy conservation will also be important to locally mapping out approaches and strategies for a more secure, affordable and environmentally responsible energy future.

NATURAL GAS SERVICES

Natural gas is a rapidly growing energy source that has been relatively cheap, clean burning and convenient. It is found in association with petroleum crude oil deposits and is transported throughout the country through high-pressure transmission lines. Gas service is available to commercial, industrial and residential developments throughout the City, with costs varying with the season and amount of use. Historically, natural gas has been a versatile and affordably priced fuel and chemical feedstock. However, a rapidly growing demand for use in utility-scale, base-load power generation is affecting the availability and cost of natural gas. Although natural gas supplies are still abundant, it is an important and elegant chemical feedstock used in a wide variety of industries and products that warrants conservation.

Southern California Gas Company

The General Plan planning area is located within the service district of the Southern California Gas Company (SCG). SCG has by far the most sophisticated and detailed technical assistance and incentive program of all energy service providers serving the City. Service planners and technical expertise from SCG's various service divisions are available to assist in addressing a wide range of use issues, including land use master planning, service extension and use-specific technical consulting/problem solving. Brief summaries of the various services available from SCG are provided below.

SCG Energy Management Programs

Southern California Gas has developed a wide range of energy management, conservation and equipment retrofit programs for its customer base. These programs include core nonresidential customers equipment rebates up to 20% of the cost of qualifying equipment. Assistance in facilities planning and analysis is also provided to maximize energy efficiency and cost-effective equipment purchases and operations.

The Gas Company's Air Quality Assistance Program provides detailed information on current and anticipated air quality requirements and helps users through the regulatory compliance maze, including the permitting process. Business partnerships are also facilitated with an "Export Hotline" and market research available. SCG also helps in the development of new technologies and process solutions primarily for industry.

LOCAL RENEWABLE ENERGY RESOURCES

A variety of important renewable energy resources are found in the Coachella Valley region include abundant sunshine and high temperatures, the San Gorgonio Wind Resource Area in the vicinity of the San Gorgonio Pass and geothermal resources at the south end of the Salton Sea. These resources provide practical and cost-effective alternatives to conventional energy resources.

The development and utilization of local renewable energy resources could significantly reduce our dependence on less environmentally friendly energy sources and may comprise and significant economic development opportunity for the City and the region. It is generally conceded that the true costs of energy from fossil or nuclear fuels are not yet fully factored into their market price and make the long-term use of renewable resources even more economically attractive.

Wind Energy

Wind energy development in the San Gorgonio Pass area began in the early 1980's, and was regulated by the U.S. Bureau of Land Management (BLM) and the County of Riverside. During the mid 1990's the City of Desert Hot Springs and the City of Palm Springs annexed wind farms into their incorporated city limits and have adopted ordinances to regulate their development and operation. The *San Gorgonio Wind Resource Study* and substantial subsequent analysis have delineated those portions of the wind resource area that offers an economically viable (developable) wind resource.

Since winds in the San Gorgonio Pass are intermittent, so too is the generation of electricity from wind turbines. Nonetheless, wind energy is emerging as an important alternative to conventional power systems. The cost of wind-generated electricity is now equal to or lower than electricity generated by coal or natural gas.

Solar Energy

The costs of manufacturing and installing solar photovoltaic systems, which involve the direct conversion of sunshine to electricity, have been dramatically reduced in recent years but are still primarily used for special applications, including powering remote locations. In the past decade, however, photovoltaic technologies have made significant progress both as stand-alone power systems and as integrated components of building design and construction.

Solar thermal systems have meanwhile been in use all over the world for many years and are widely applied in the Coachella Valley to provide domestic hot water and to heat swimming pools. Passive solar designs are also being used to provide natural lighting and space heating.

Palm Desert is well situated to take advantage of the continued emergence and refinement of solar technologies, with the use of abundant solar energy for both solar and photovoltaic systems. These technologies are also expected to become integral to the emergence of a hydrogen fuel cycle, which could result in virtually pollution-free electric power and combustion fuel.

Hydrogen Fuel Cells

Hydrogen technology is quickly becoming one of the leading renewable energy sources currently being developed and utilized. Fuel cell technology uses hydrogen to generate electricity to power vehicles, homes and businesses. Hydrogen is produced from the splitting of water and its use generates heat and water vapor but no other wastes.

Fuel cells convert chemical energy directly into electricity with greater efficiency than any other current power system. When coupled with solar or wind technologies, hydrogen power can be utilized on large scales, including primary power for commercial and industrial uses. While not new, fuel cell technologies are being developed and refined at an accelerating pace and are being locally used in test vehicles.

INSTITUTIONAL PROGRAMS

SunLine Transit Energy Programs

The SunLine Transit Agency has developed several innovative programs that focus on cleaner and renewable energy resources. SunLine operates the Valley's public transit system, and utilizes a fleet of buses that are powered entirely by compressed natural gas. These buses provide an important service to the Valley, while helping to reduce locally generated air pollutants, improve the local environment and promote energy and environmental awareness. In addition, SunLine, in partnership with the City, has begun a renewable hydrogen-based transportation project.

This project demonstrates the practical utility of hydrogen as a transportation fuel and the fuel cell as a vehicle power system. SunLine operates a complete hydrogen production, compression, storage and dispensing facility, which provides compressed hydrogen for use in fuel cell powered vehicles. The City of Palm Desert owns and operates these street-legal vehicles, using them for such tasks as gardening and maintenance. For the future, SunLine is working on a stationary power program, which will use micro-turbines to locally generate electricity.

College of the Desert

The Energy Technology Training Center (ETTC) and the Advanced Transportation Technologies Initiative (ATTI) are two programs based at the College of the Desert. The ETTC was opened in 1993 and has become a national leader in alternative fuel technology training. It was also selected by the State's Chancellor's Office to serve as a model for nine other community colleges for alternative fuel technology training programs. ATTI is a network of community colleges in California that trains students and retrain workers for the jobs of the future. ATTI educates people for careers in the transportation industry of the 21st century, providing technical skills needed to service, convert, repair and maintain the new, technologically advanced, and reduced-emission vehicles.

FUTURE DIRECTIONS

Since the onset of the industrial revolution, energy and mineral resource production and use have become essential components of infrastructure and technology development, and have greatly enhanced our quality of life. Retrieving, harnessing and using these resources have also been one of the major causes of environmental degradation, impacting wildlife habitat, affecting water and air quality, and being directly and indirectly associated with a wide range of adverse public health effects.

The economic and environmental costs associated with conventional and frequently indiscriminate mineral and energy production and use are forcing communities and countries to develop new policies and programs. The various constraints that have emerged can also be viewed as opportunities for economic and environmental enhancement. Materials recycling, and lowering or shifting energy demand will help to control costs and require mineral and energy providers to operate more efficiently and to price their products more competitively.

Encouraging conservation and the development and use of alternative and renewable energy will also expand economic opportunity. Issues of local and national economic security will also be addressed by the development and implementation of enlightened energy policies. Developing energy policies with an emphasis on conservation, local control, greater use of renewable resources and community-scale technologies, will help assure a secure and environmentally friendly energy future.

GOALS, POLICIES AND PROGRAMS

Goal

Efficient, sustainable and environmentally appropriate use and management of energy and mineral resources, assuring their long-term availability and affordability.

Policy 1

Promote energy conservation throughout all areas of the community and sectors of the local economy, including the planning and construction of urban uses and in City and regional transportation systems.

Program 1.A

The City shall strictly and consistently enforce all state mandated energy-conserving development and building codes/regulations, and shall investigate and report on the appropriateness of developing more stringent local energy performance standards.

Responsible Agencies: Building Department, Community Development Department

Schedule: 2004-05; Continuous

Program 1.B

The City shall develop or otherwise make available information to developers on energy efficient and conserving building design and technologies, addressing enhanced wall and ceiling insulation, thermally efficient glazing, and efficient heating and cooling equipment and household appliances.

Responsible Agencies: Building Department, Community Development Department

Schedule: 2004-05; Continuous

Program 1.C

The City shall periodically assess the local transportation system and plan or maintain improvements that enhance the efficient movement of people and goods through the community.

Responsible Agencies: Building Department, Community Development Department

Schedule: Minimum of every 5 years

Program 1.D

The City shall continue to participate in the transportation planning efforts of SunLine Transit Authority and shall encourage the expanded use of public transit, vehicles fueled by compressed natural gas and hydrogen, buses with bike racks and other system improvements that enhance overall transportation system operations and energy conservation.

Responsible Agency: Community Development Department, SunLine Transit Agency; CVAG

Schedule: Continuous

Program 1.E

The City shall strive for efficient community land use and transportation planning and design, and shall assure the provision of convenient neighborhood shopping, medical and other professional services appropriately located to minimize travel and facilitate the use of alternative means of transportation.

Responsible Agency: Public Works Department, Community Development Department, CVAG; Riverside County Transportation Commission (RCTC)

Schedule: Continuous

Policy 2

Promote the integration of alternative energy systems, including but not limited to solar thermal, photovoltaics and other clean energy systems, directly into building design and construction.

Program 2.A

The City shall collect and make available to residents, businesses, and the building industry information on commercially available conservation technologies, solar thermal and photovoltaic energy systems, fuel cell and other alternative energy technology, . Building regulations and guidelines that provide for the safe and efficient installation of these systems shall also be provided.

Responsible Agency: Building Department, Community Development Department

Schedule: 2004-05; Continuous

Program 2.B

The City shall proactively promote and coordinate with CVAG, its member jurisdictions and others in the holding of workshops on the use of alternative energy and the local development of associated industries in the Coachella Valley.

Responsible Agency: Community Development Department, CVAG, Sunline Transit Agency, Coachella Valley Economic Partnership, Palm Desert Chamber of Commerce

Schedule: 2004-05; Annually

Policy 3

Proactively support long-term strategies, as well as state and federal legislation and regulations, that assure affordable and reliable production and delivery of electrical power to the community.

Program 3.A

The City shall investigate and pursue the various options available to influence or directly manage the purchasing and/or distribution of electrical power to the various segments of the community, including regular consultation with SCE and IID, and the possible participation in a local public power authority.

Responsible Agency: Community Development Department; Public Works Department; City Council

Schedule: 2004-05; Continuous

Program 3.B

The City shall coordinate with CVAG and member jurisdictions in communicating, to state and federal legislators and regulators, a mutually agreed upon legislative and regulatory agenda that addresses the near and long-term energy and associated economic needs of the City and the Coachella Valley.

Responsible Agency: Community Development Department; Public Works Department, City Council, CVAG, Sunline Transit Agency

Schedule: 2004-05; Continuous

Policy 4

Support public and private efforts to develop and operate alternative systems of wind, solar and other electrical production, which take advantage of local renewable resources.

Program 4.A

Coordinating with CVAG and member jurisdictions, the City shall encourage and support the expansion and enhancement of the valley's wind farms, and shall support studies, strategies and technologies that take advantage of the potential for utility-scale electric power production as a means of addressing the restoration of the Salton Sea.

Responsible Agency: Community Development Department, Public Works Department, City Council, CVAG, Salton Sea Authority

Schedule: 2004-05; Continuous

Program 4.B

Support and facilitate the integration of co-generation and other on-site energy production and management systems into larger industrial, commercial and institutional operations in the City to enhance operational efficiencies, reliability, and to provide additional opportunities for local power production.

Responsible Agency: Public Works Department; Community Development Department; Building Department; SCE and IID; SCG

Schedule: Continuous.

Policy 5

Assure the long-term availability of local mineral resources, especially those of low unit value, to assure a reliable and affordable supply of materials for the construction of buildings, roads, flood control facilities and other necessary improvements.

Program 5.A

To the extent practical, the City shall cooperate with CVAG and its member jurisdictions in monitoring and regulating the safe and environmentally responsible extraction and recycling of significant mineral resources located within the planning area and the region.

Responsible Agency: Community Development Department, Public Works Department, CVAG

Schedule: Continuous.

Program 5.B

To the greatest extent practical, the City shall require or encourage the recycling of mineral-based construction materials, including asphalt, concrete, gypsum and similar materials, as well as the facilities to assure their efficient recycling

Responsible Agency: Community Development Department, Public Works Department, CVAG

Schedule: Continuous.

OPEN SPACE AND CONSERVATION ELEMENT

PURPOSE

The purpose of the Open Space and Conservation Element is to provide for the comprehensive and long-term preservation and conservation of natural resources and open space lands located within the General Plan study area. The Element addresses protection and conservation of natural resources, including biological, cultural, water, mineral and scenic resources. It is the intent of this Element to recognize that natural resources and open-



space lands are limited and valuable resources, which must be conserved wherever possible. As development and growth continue to shape and change the Coachella Valley and the City of Palm Desert, thoughtful planning and resource management become imperative to maintaining the integrity of our natural resources and open space areas, and to preserving the enviable quality of life enjoyed by Palm Desert residents and visitors.

The policies and programs presented within this element serve as tools to create a productive harmony between existing and future development and the continued safeguarding of important natural resources and undisturbed open space areas. They also function to assure the long-term viability of open space and conservation lands by discouraging the premature or inappropriate conversion of these lands to urban uses. By implementing the policies and programs presented in this Element, the City expresses its commitment to the natural environment and recognizes its importance to the community.

Since conservation and open space are closely related, they have been integrated into one comprehensive element of the General Plan. Included in the Element are definitions and descriptions of open space and conservation areas; identification of opportunities, issues and constraints associated with the development, management and maintenance of natural resources and open space lands; programs and legislation relevant to acquiring lands for open space uses, as well as methods for funding them. The planning efforts set forth in this Element not only aim to establish local open space and conservation areas, but to facilitate the creation of a seamless regional network of pristine natural environments.

BACKGROUND

The broad and wide-ranging nature of the issues and subjects within this Element relate directly and indirectly to many other elements of this General Plan. This Element has direct influence on policies and programs set forth in the Land Use and Circulation Elements. Other elements including, Parks and Recreation, Biological and Cultural Resources, Water Resources and Geotechnical Elements are also directly related to the Open Space and Conservation issues addressed in this Element. Because of this Element's far-reaching scope, state law mandates ambitious and detailed planning efforts that are coordinated with other local, regional and statewide plans.

The provisions of Government Code 65560-65570 regulate the development of the Open Space and Conservation Element, which is the subject of detailed statutory intent. The Code defines open space land as any area that is essentially unimproved and devoted to an open space use as designated by a local, regional or state plan. Open space areas generally fall into four categories: open space for the preservation of natural resources; open space used for the managed production of resources; open space for outdoor recreation; and open space for public health and safety. These are further discussed below.

Government Code Section 65563 requires that every city and county prepare and adopt a local open-space plan to ensure the comprehensive and long-range preservation of open-space land within its jurisdiction. This plan must be submitted to the Secretary of the Resources Agency, and may consist of the Open Space Element that is adopted by the city council. It must also contain specific programs that will implement the open-space plan, which the City is expected to pursue (Government Code Section 65565).

Government Code Section 65567 states that no building permit may be issued, no subdivision map approved and no open-space zoning ordinance adopted, unless the proposed construction, subdivision or ordinance is consistent with the local open-space plan.

Relevant to the conservation component of this Element, is Government Code Section 65302(d), which requires that General Plans include elements that address issues of resource conservation, development and utilization, including reclamation, prevention of pollution or resource degradation, and protection of watersheds. In this regard, please see the Energy and Mineral Resources, Air Quality, Water Resources Elements of this Plan.

OPEN SPACE CATEGORIES

There are four categories of open space land, which are relevant to the General Plan planning area. Each type of open space has many issues regarding conservation. The following gives a brief description of each category and is followed by a description of locations within the planning area that can be characterized by one or more of these categories.

Open Space for Outdoor Recreation

Open space areas preserved for outdoor recreation include those areas particularly well suited for park and recreation purposes; lands with outstanding scenic, historic and cultural value; and areas that serve as links between major recreation and open space facilities, including utility easements, mountainous areas, wash courses, trails and scenic highway corridors.

Living Desert Wildlife and Botanical Park

The Living Desert is the number one open space recreation attraction in the Coachella Valley, with about 300,000 visitors each year. The Living Desert was originally established as a wilderness preserve. In 1970, several prominent citizens anticipating urban development and wanting to protect the natural desert convinced the Palm Springs Desert Museum to establish an interpretive trail and preserve on 360 acres in Palm Desert. Soon after, the California Department of Fish Game collected animals, and a visitor center was built with an in-house naturalist.

By 1981, the Living Desert had become an independent organization, no longer a part of the Palm Springs Desert Museum. It had developed many wildlife exhibits, as well as several gardens representing different deserts in North America. In addition, the park had collected enough animals, including non-native and endangered species, to demand a full time curator. Today, the Living Desert has grown to cover a total of 1,200 acres. About 200 acres of the site support a zoo and botanical garden, while the remaining acreage, located in the Santa Rosa Mountains, is kept in its natural state as a preserve. It is solely dedicated to interpreting and conserving the deserts of the world and is home to a variety of plants and animals from worldwide desert ecosystems.

The Living Desert is a non-profit organization run by 100 full time and part time staff, as well as 400 volunteers. The staff members run a number of programs, including environmental education, native wildlife rehabilitation, plant propagation, and captive breeding. The Living Desert has approximately 10,000 contributing members who support and are involved with activities, programs and future development of the zoo, garden and preserve.

Joshua Tree National Park

Joshua Tree National Park abuts the northern boundary of the General Plan planning area and encompasses 794,000 acres, traversing two ecosystems: the Mojave and Colorado deserts. Designated as a National Monument in 1936 and as a Biosphere Reserve in 1984, Joshua Tree achieved National Park status in 1994. The Park encompasses pristine desert landscapes and some of the most interesting geologic formations found in the California Deserts.

The eastern portion of the park is classified as a part of the Colorado Desert, where lower elevations feature natural gardens of creosote bush, ocotillo, and cholla cactus. The western portion of the park is part of the Mojave Desert. It occurs at higher elevations, and is a cooler and moister environment that is the habitat of the unusual Joshua Trees for which the Park is named. The five fan palm oases, which occur throughout the Park, indicate a few areas where water occurs naturally close to the surface and where wildlife can thrive. In addition to being a significant natural resource, the park is a great historic and cultural resource with remnants of the Native Americans who lived in and traveled through the area, leaving behind rock paintings and pottery. Abandoned mines from the era of the California Gold Rush are also located in the park.

More than 80% of the park is designated as wilderness, which provides an excellent environment for recreational activities, including interpretive walks and talks, hiking, rock climbing, horseback riding, wildlife viewing and camping. There are nine campgrounds, mostly within the western portion of the park. The campgrounds have picnic tables, fireplaces, and toilets, and can accommodate two cars, three tents and up to six people. Hiking trails offer opportunities to explore all the highlights of the park's terrain. Trails offer a variety of lengths and degree of difficulty, and some of the shorter trail loops have interpretive brochures and signage.

San Jacinto and Santa Rosa Mountains National Monument

The Santa Rosa Mountains have been recognized by the U.S. Congress as a nationally important scenic and national resource area, warranting planning for the long-term protection of the mountains and its valuable wildlife and scenic resources. While the designation does not afford formal federal protection, it does increase the opportunity for federal funding for mountain and resource protection. Currently and in the future, it is anticipated that federal budget proposals will make available funding for acquisition of lands within the National Scenic Area by the Bureau of Land Management and possibly other public land entities.

The Santa Rosa Mountains National Scenic Area Visitors Center, located on Highway 74 near the mountain foothills, provides exhibits and information on the mountain's resources, as well as gardens of indigenous and ethnographically important plants. The SRMNSA is also part of the Coachella Valley Multi-Species Habitat Conservation Plan (MSHCP) planning area.

The U.S. Congress and the President established the San Jacinto and Santa Rosa Mountains National Monument in October, 2000, creating a monument that extends from the San Geronio Pass southeast into the Imperial Valley. The legislation enacting was sponsored by Senator Feinstein and Congresswoman Bono

The Monument designates 440 square miles in five climate zones, ranging from desert to arctic pine. The Monument designation resulted in prohibitions on mining and off-road vehicle use. A management plan is currently being developed for these lands.

Parks and Recreation Areas



While the various open space and conservation resources discussed above constitute those typically associated with sensitive ecosystems and areas of important scenic beauty, developed and undeveloped park lands meant for active and passive recreation are also important open space resources that must be planned for use, management and preservation. These open spaces serve as the mediators between the built and natural environment.

All of the City's open space lands should reflect an ethic of integrated enhancement that incorporates the varied uses of open space for recreation, scenic viewsheds and passive enjoyment, as well as the preservation of important biological and cultural resources. Important examples include the City's Civic Center Park, with its date palm grove, lake and amphitheater, which provide important managed open space areas designed for use and recreation activities (also see the Parks and Recreation Element).

Table IV-9
Designated Open Space Lands

Parks and Open Space Areas	Approximate Acreage
Civic Center	70±
Palm Desert Soccer Park	21±
Ironwood Park	14.5±
Homme/Adams/Cahuilla Hills	72±
Sports Complex	10±
Portola Park	2±
Palm Desert Country Club	2.5±
<u>Additional Open Space Lands In/Near the City Planning Area</u>	
The Living Desert	1,200±
Coachella Valley Preserve	17,000±
Canyons @ Bighorn	50±
Ironwood/Deep Canyon	90±
City/BLM Visitors Center	384±
Willow Hole Preserve	587±
Joshua Tree National Park	794,000±
San Jacinto & Santa Rosa Mountains National Monument	272,000 ±

Open Space for the Preservation of Natural Resources

Open space for the preservation of natural resources encompasses an assortment of areas, which are required to maintain biological diversity, to protect significant features, and to ensure that future generations will have access to natural environments. Preservation can be defined as the safeguarding and protection of natural resources to prevent their destruction and ensure their long-term survival.

The most significant contributor to the depletion of valuable natural resources is the conversion of open space to urban development. Without large uninterrupted areas of open space, many species cannot survive. Therefore, in addition to establishing open space lands for recreational uses, natural environments need to be established that are managed for the purpose of protecting and preserving valuable natural resources.

Biological Resource Preservation

With regard to the protection and preservation of wildlife resources, the City has been a leader and ongoing participant in the development of the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP). The planning efforts undertaken by the MSHCP represent a regional, multi-jurisdictional collaboration to protect biological resources in the area. The MSHCP's ecosystem approach recognizes the fragile and interconnected nature of biological communities, and focuses on entire natural systems.

The Coachella Valley MSHCP planning effort is focused on the identification and acquisition of habitats, the preservation of which is essential to providing long-term protection to the plan's target species. However, the plan and its implementation also address the provision of trails and interpretive signage and facilities within the various conservation areas, consistent with the primary goal of species protection.

The success of conserving these areas and their resources, and their accessibility for nature walks and wildlife viewing, are highly dependent on participation and cooperation of all of the Valley's jurisdictions. For that reason, the City should continue to be actively involved in this vital resources planning effort.

Coachella Valley (Thousand Palms) Preserve

Residents of the City of Palm Desert also have managed-access to two convenient and important wildlife management areas in the Coachella Valley. The Coachella Valley Preserve is a 17,000 acre site that is part of the larger Coachella Valley Preserve system and is located east of the community of Thousand Palms.

The preserve system includes three separate units that total over 20,000 acres. The focus of the preserve system is the protection of the desert sand dunes and sand fields, which are crucial habitat for the Coachella Valley fringe-toed lizard and other sensitive, sand-adapted species.

In 1980, the federal government listed the Coachella Valley fringe-toed lizard as threatened. This listing was primarily due to development in the area and the associated loss of habitat for the

lizard and many other species of plants and animals. In April 1984, the Nature Conservancy purchased 1,920 acres of crucial habitat to insure the protection of the lizard and other plants and animals that share its unique ecosystem.

The Preserve provides managed access to the site's palm oases and other interesting areas through a system of trails beginning from the parking lot located off of Thousand Palms Canyon Road. The visitor's center provides self-guided trail brochures that with information on the plants, animals, and habitats associated with the Preserve.

Trails include the one-mile long McCallum Trail, Moon Country trail, as well as trails leading to the Indian, Pushwalla, Horseshoe, Hidden and Willis Palms oases. They range from 3.5 to 6 miles, roundtrip from the Palm House Visitor Center and parking area. Horseback riding is permitted on the Willis, Horseshoe, and Hidden Palms Trails.

Willow Hole/Edom Hill Preserve

The Willow Hole/Edom Hill Preserve is located on the west end of Edom Hill, immediately east of Mountain View Road and north of Varner Road. It was also established to assure long-term viable habitat for the Coachella Valley fringe-toed lizard. This preserve also hosts a wide variety of plant and animal communities and supports important species of nesting and migratory birds.

As with the Coachella Valley Preserve, Willow Hole includes lands crossed by the San Andreas Fault Systems, which has created unique microenvironments supporting native desert fan palm oases (*Washingtonia filifera*) and other unique species. The City secured a \$290,000 Environmental Enhancement and Mitigation grant, which was used to acquire lands in the Willow Hole Preserve. The Willow Hole/Edom Hill Preserve is not open to the public but is accessible with proper permits for scientific research (also see the Biological Resources Element).

Open Space for the Managed Production of Resources

While the most prevalent use of land is for residential, commercial and other development, there are many economically productive uses, which rely on open land that is not over-burdened with development. Open space for the managed production of resources requires open areas, which have not yet been urbanized, such as areas containing mineral deposits, areas required for the recharge of groundwater basins and water storage, as well as areas that are suitable for the generation of energy.

Finite resources include those that cannot be readily renewed, and consist of oil, natural gas and other fossil fuels, as well as mineral resources. Minerals are considered to be any naturally occurring chemical elements or compounds, formed from inorganic processes and organic substances, including but not limited to iron, limestone, coal, peat, bituminous rock, sand and gravel, but excluding geothermal resources, natural gas and petroleum.

The importance of mineral deposits and their utilization is dependent upon their relative abundance and importance in commerce and industry. Deposits of rare or important industrial materials require careful consideration before their availability are precluded by urban development. In the General Plan planning area, important mineral resources are largely limited to sand and gravel aggregates located in the Indio Hills (also see Energy and Mineral Resources Element).

Open Space for Public Health and Safety

Open space for public health and safety includes areas, which require special management or regulation because of hazardous or special conditions. These include earthquake fault zones, areas of unstable slopes and soils, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs, and areas for the protection and enhancement of air quality. (Also see the Geotechnical, Hydrology, Emergency Preparedness, and Water Resources Elements for more detailed information).

While these lands may remain open due to hazardous situations, they have potential for other uses. Land along fault lines can be retained in its natural condition as a wildlife corridor and flood control facilities may be usable for natural open space and recreation.

LAND ACQUISITION

The thoughtful designation of open space is one way to ensure that the development or preservation of natural resources is consistent with the goals and policies of the City. Open space regulation can allow the land to be used and/or preserved for the good of the entire community while remaining largely undeveloped. To help conserve open space in California, many conservation programs and legislative enactments have been put into effect. These programs include the Conservation Easement Act, Open-Space Easement Act of 1974, less-than-fee real property interests, and the Scenic Deed Act.

The Conservation Easement Act (Civil Code Sections 815-816) enables a local government or a non-profit organization to acquire continual easements for the conservation of agricultural and open space lands, and historic preservation. An agreement is made between the landowner and accepting agency as to the types of uses that can be permitted, which are then incorporated into the easement. The granting of a conservation easement may qualify as a charitable contribution for tax purposes or as an "enforceable restriction" for purposes of preferential assessment.

The Open Space Easement Act of 1974 (Government Code Sections 51070-51097) gives local governments the authority to accept easements granted to them or to nonprofit organizations for the purpose of conserving open space and agricultural lands. State law facilitates preserving open space through a less-than-fee real property interest. This concept grants the easement holder the right to prevent certain land uses. Easements qualify as less-than-fee interests, and are often used because they are less expensive than the purchase of full fee rights, can be more effective than zoning, do not displace and often yield tax advantages to property owners. Local agencies may obtain these easements by purchase, exaction or gift.

The Scenic Easement Deed Act (Government Code Sections 6950-6954) authorizes a local government to purchase fee or scenic easements, but there is no special mechanism for obtaining them. Land uses are regulated by the Act enabling local governments to adopt an ordinance for the purpose of establishing open space covenants with property owners.

A jurisdiction may acquire real property in a variety of other ways. For instance, in the past the City has acquired open space lands using both General Fund and Redevelopment Agency funds, and may wish to continue to consider acquisition methods such as *acquisition of fee simple absolute interest, joint acquisition, and land swapping*, also discussed in the General Plan EIR.

Public Land Trusts

In the City planning area and the Coachella Valley, several public and private non-profit entities are actively involved in acquiring and managing open space and conservation lands. These include the Coachella Valley Mountains Conservancy, Friends of the Desert Mountains, the Center for Natural Lands Management, The Nature Conservancy, The Wildlands Conservancy and The Living Desert.

In addition to public ownership of conservation lands by such agencies as the Department of Fish and Game, the US Fish and Wildlife Service, the US Bureau of Land Management and the U.S. Forest Service, public land conservation trusts and similar organizations are another method for protecting open space, agricultural lands and wildlife habitats and natural resource lands. Land trusts achieve their objectives primarily through acquiring and managing interests in land.

Generally, land conservation trusts preserve open space lands and natural resources in a variety of ways. Some use their funds to acquire fee simple interest in real estate and then manage or lease back their holdings. Others purchase conservation easements, which protect sensitive land from development while allowing owners to use a portion of their lands or to sell their remaining property interests to whomever they please.

Since they are less restricted by governmental red tape, private land trusts are usually able to respond more quickly than governmental entities to sudden and fleeting purchasing opportunities. They also use their real estate experience to help public agencies with the mechanics of acquisition. A public land trust helps to preserve environmentally sensitive open space and conservation lands, and to pursue State and Federal funding with grants and loans, and scientific and technical support through other assistance mechanisms for the preservation of open space.

Coachella Valley Mountains Conservancy and Friends of the Desert Mountains

The Coachella Valley Mountains Conservancy (CVMC) is a conservancy agency of the State of California with a mandate to conserve and manage rare, unique and otherwise important wildlife lands and habitats. With headquarters in the Palm Desert, the CVMC has been an important conduit of state funds and an acquirer of land for conservation. Also, as a major force in bringing about an integrated and coordinated approach to wildlife conservation, the Conservancy, under contract to the Coachella Valley Association of Governments (CVAG), is the principal author and facilitator for the aforementioned Coachella Valley Multiple Species Habitat Conservation Plan.

The independent Friends of the Desert Mountains Foundation has been established by local conservation leaders to provide a mechanism for raising funds and acquiring important habitat in the Coachella Valley. The Friends' *Adopt an Acre* program has been very successful in raising both conservation funding and consciousness. The Friends provide volunteer support to the Santa Rosa Mountains Visitors Center on Highway 74 in Palm Desert, operate a bookstore at the Center, produce a quarterly newsletter and staff special conservation events.

Funding Mechanisms

While some lands find their way into conservation status as outright gifts and the granting of conservation easements, viable funding mechanisms are still essential to financing the acquisition and management of open space. These mechanisms may include State obligation bonds, tax increment financing, state and federal grants, access and user fees. Open space management is also an issue of public economic interest. Potential fee structures for open space maintenance and monitoring, regulation of access to habitat conservation plan areas, as well as hiking, camping, group tours and other uses must also be considered.

In addition to these funding mechanisms, the Legislature has helped organizations create a broad range of categorical grant and loan programs that can help to finance open space and make its acquisition more economically feasible for smaller communities, including:

- Land and Water Conservation Fund/Department of Parks and Recreation
- Habitat Conservation Program/Department of Parks and Recreation
- Simms Trail Bill/Department of Parks and Recreation
- Public Access Program/ Department of Fish and Game
- Wildlife Conservation Board Program/Department of Fish and Game
- Urban Forestry Program/California Department of Forestry
- City Redevelopment Agency

FUTURE DIRECTIONS

The City of Palm Desert and its General Plan planning area contain many valuable natural resources and open space lands that create a unique natural environment, making significant contributions to the desirability of the area and to an enhanced quality of life in the community. The preservation of these areas and resources is an ongoing effort that will need to be continually pursued by the City. However, thoughtful planning and implementation of the General Plan, Zoning Ordinance and other regulatory mechanisms will serve as tools to encourage and assure conservation practices well into the future.

Furthermore, the City has and will continue to play an important leadership role in actively supporting the preservation efforts of non-profit and other conservation groups, and by assisting in securing open space lands for the long-term safeguarding of the natural environment and open space resources. Assistance may also be provided in securing state and federal grants for purchase of conservation easements and/or fee simple ownership interest.

The City's continued leadership, support and participation in the Coachella Valley Multiple Species Habitat Conservation Plan will be pivotal in helping to realize regional conservation on a scale that secures the natural, cultural and economic health of the City and the region for many years to come. The combined and ongoing efforts of the City, adjacent communities, and private interests will ensure the conservation and preservation of one of the community's most valuable assets: its natural resources and open space lands.

GOALS, POLICIES AND PROGRAMS

Goal 1

Open space and conservation lands that are preserved and managed for the protection of environmental resources, threatened or unique plant and animal species, and maintenance of pristine and natural habitats and desert ecosystems, protection against environmental hazards, and the provision of enhanced recreational opportunities and scenic qualities of the City.

Goal 2

A balance between the community's built environment and local and regional protection and preservation of the unique desert environment.

Policy 1

The City shall identify and map lands suitable for preservation as passive and active open space areas to be added to the already existing resource areas of this type.

Program 1.A

The City shall develop an inventory of open space land that is available, desirable and appropriate for acquisition and management and public park and open space lands suitable for and meeting passive and active recreational needs of the community.

Responsible Agency: Community Development Department, Parks and Recreation Commission, City Council

Schedule: Continuous

Program 1.B

In cooperation with CVAG and the Mountains Conservancy, the City shall develop an inventory of open space lands that are available, desirable and appropriate for acquisition and management as regional open space and conservation assets.

Responsible Agency: Community Development Department, Coachella Valley Mountains Conservancy, CVAG other private conservation organizations

Schedule: Continuous

Program 1.C

Through implementation of the Coachella Valley Multiple Species Habitat Conservation Plan, the City shall regularly confer and coordinate with CVAG, the Mountains Conservancy and other responsible agencies to map and periodically update information on the various open space lands and facilities within the City and its planning area.

Responsible Agency: Community Development Department, City Council, CVAG, Mountains Conservancy, Bureau of Land Management, California Department of Fish and Game, other conservation agencies and organizations

Schedule: Continuous

Program 1.D

To the extent practical, the City shall coordinate and cooperate with CVAG, the Mountains Conservancy and responsible agencies to integrate a system of managed trails and regulated nature programs into the implementation and management of the Coachella Valley Multiple Species Habitat Conservation Plan

Responsible Agency: Community Development Department, City Council, CVAG, Mountains Conservancy, Bureau of Land Management, California Department of Fish and Game, other conservation agencies and organizations

Schedule: 2003-04; Continuous

Policy 2

Through City-based efforts and coordination with CVAG and member jurisdictions, the City shall proactively plan for the financing of open space lands acquisition and management.

Program 2.A

The City shall include the planned acquisition of open space lands into its five year Capital Improvements Program planning and shall identify potential sources of funding for said acquisitions.

Responsible Agency: Community Development Department, City Council,

Schedule: Annually

Program 2.B

The City shall coordinate and cooperate with CVAG and member jurisdictions in efforts to secure viable, long-term sources of financing for the implementation and management of the Coachella Valley Multiple Species Habitat Conservation Plan.

Responsible Agency: Community Development Department, City Council, CVAG and Member Jurisdictions, Mountains Conservancy, Bureau of Land Management, California Department of Fish and Game, US Fish & Wildlife Service other conservation agencies and organizations

Schedule: Continuous

Policy 3

The City shall identify and map hazard zones (earthquake fault zones, floodways and floodplains, blowsand areas, steep or unstable slopes, etc.) and, as appropriate, shall designate these areas as open space on the General Plan Land Use Map.

Program 3.A

Through the General Plan and associated EIR evaluation process, the City shall identify and evaluate appropriate areas of the community for preservation as public or private open space for protection against environmental hazards. Such identified areas shall be appropriately designated on the General Plan Land Use Map.

Responsible Agency: Community Development Department, Planning Commission, City Council

Schedule: Continuous; Minimum every five years

Policy 4

The City shall identify the location of flood control and utility easements and shall assess their potential for development as and inclusion in a multi-use trail system capable of providing alternative transportation links to parks and open space areas in and near the City planning area.

Program 4.A

The City shall confer and coordinate with the Coachella Valley Water District, Southern California Edison and other utility purveyors to, as practical, develop an integrated multiple use trail system that links City parks and open space lands.

Responsible Agency: Community Development and Public Works Departments, CVWD, SCE and other easement/rights-of-way holders

Schedule: Continuous

Policy 5

The City shall promote congruency and cooperation with and between the open space and conservation management plans and policies of other local, regional, state and federal agencies, as well as non-profit foundations and groups involved with the preservation of natural resources.

Program 5.A

Pro-actively follow activities of and coordinate with surrounding jurisdictions in the planning and management of open space and conservation lands, continue to be an active participant in the Coachella Valley MSHCP, and coordinate with public and private non-profit organizations that manage land within the City and General Plan planning area.

Responsible Agency: Community Development Department, CVAG and Member Jurisdictions, State and Federal Resource Agencies, private non-profit organizations

Schedule: Continuous

Policy 6

The City shall develop and implement land use regulations and guidelines that assure provision of appropriate buffers between urban and open space/conservation areas.

Program 6.A

Establish land use and development regulations and guidelines in the General Plan and Development Code, which ensure compatibility and appropriate buffers between urban land uses and open space and conservation areas.

Responsible Agency: Community Development Department, Planning Commission, City Council

Schedule: 2003-04, Continuous

Policy 7

Investigate the feasibility of establishing a City-based public land trust or similar mechanism to preserve important open space and conservation lands, which may not be acquired as part of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP).

Program 7.A

Investigate and, if appropriate, participate in the establishment of a locally based public land trust to preserve environmentally sensitive and otherwise important open space areas and conservation lands not designated for acquisition under the CVMSHCP, and provide incentive mechanisms for gifts and bequests of land to the trust.

Responsible Agency: Community Development Department, City Council

Schedule: 2003-2004; Continuous

Program 7.B

Assist public land trusts or similar private non-profit entities in pursuing private funding, as well as state and federal grants, loans and other assistance for acquisition, preservation and management of local open space and conservation lands.

Responsible Agency: City Council, Public Land Trusts, Community Development Department

Schedule: 2003-2004; Continuous

Policy 8

Adopt a Development Code, which encourages the dedication and conveyance of open space areas on the valley floor and hillsides through flexible development standards and innovative planning and development.

Program 8.A

The City shall consider the adoption and implementation of flexible development policies, standards and guidelines that encourage the provision of open space amenities within new residential subdivisions, planned developments or elsewhere in the City. Appropriate policies, standards and guidelines may be incorporated into the City Development Code and other appropriate regulatory documents.

Responsible Agency: Community Development Department, City Council, Development Community

Schedule: 2003-04; Continuous

Policy 9

Adopt a comprehensive grading ordinance that will protect and conserve hillsides and other open space and natural resources.

Program 9.A

Develop and adopt a comprehensive grading ordinance that protects hillsides and other open space and natural resource conservation areas that are sensitive in terms of topography and visibility, wildlife resources, water or mineral resources and air quality.

Responsible Agency: Community Development Department City Council

Schedule: 2003-04; Continuous

CITY OF PALM DESERT

COMPREHENSIVE GENERAL PLAN

CHAPTER V

ENVIRONMENTAL HAZARDS

This chapter of the General Plan addresses those man-made and natural environmental hazards, which occur in the City of Palm Desert and the surrounding planning area. General Plan elements discussed in this chapter include Geotechnical, Flooding and Hydrology, Noise, and Hazardous and Toxic Materials. The assessment of and planning for these hazards or constraints is the primary purpose of this chapter of the General Plan.

GEOTECHNICAL ELEMENT

PURPOSE

The purpose of the Geotechnical Element is to provide information about the geologic and seismic conditions and hazards affecting the City of Palm Desert, its Sphere of Influence (SOI), and the expanded General Plan planning area. It sets forth a series of goals, policies, and programs directed at protecting the general health and welfare of the community and reducing the potential for injuries, loss of life, and property damage resulting from seismic and other geologic hazards. The Element and its supporting documentation also serve as an information database on regional geotechnical hazards as a foundation upon which future land use policies and decisions will be based.

BACKGROUND

The Geotechnical Element focuses on the physical characteristics of the planning area and the safety of the community. It is directly related to a number of other General Plan elements, including Land Use, Circulation, Housing, Economic/Fiscal, Public Buildings and Facilities, Emergency Preparedness, and Water, Sewer and Utilities. Many of the issues addressed in the Flooding/Hydrology, and Police and Fire Protection Elements are also closely related to the Geotechnical Element.

Both the California Government Code and Public Resources Code require the development of an element addressing seismic safety issues. Government Code Section 65302(g) requires that the General Plan address the need to protect the community from unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, seiching, dam failure, subsidence, and other known geologic hazards. The Geotechnical Element also satisfies, in part, Government Code Section 65303, which states that the General Plan may also address other subjects related to the physical development of the community. Government Code Section 8876 establishes a program by which the City and all other jurisdictions located within the most severe seismic shaking zone, Zone 4 (as set forth in Chapter 2-23, Part 2, Title 24 of the Administrative Code), shall identify all potentially hazardous or substandard buildings and establish a program for the mitigation of these structures.

The most important piece of legislation directly related to this element, however, is the Alquist-Priolo Earthquake Fault Zoning Act, found in Public Resources Code Sections 2621 et. seq. The Act and its requirements are described in detail in subsequent sections of this Element.

GEOLOGIC CONDITIONS IN THE PLANNING AREA

The Coachella Valley is the northern extension of a broad structural depression known as the Salton Trough. During about the last 10,000 years (Holocene Epoch), the Salton Trough has been inundated by more saline, mineral-rich water, which has formed lakes and inland seas. Among these bodies of water are Ancient Lake Cahuilla, which evaporated about 400 years ago when the Colorado River changed its course to flow directly into the Gulf of California. The latest body of water to form in the Salton Trough is the present-day Salton Sea, which was formed in 1905 as a result of a break in a levee in the Colorado River.

Four types of geologic deposits underlie the Palm Desert General Plan planning area, including: 1) granitic and metamorphic basement rock associated with the mountains, 2) conglomerate underlying the Indio Hills, as well as minor traces in the southern planning area, 3) stream deposits (alluvium) shed from the mountains, and 4) blowing sand deposits. The geologic composition of the valley has a great deal of influence over the geotechnical hazards affecting the City and planning area. Among these hazards are windblown sand, wind erosion, and subsidence, which are discussed in more detail below.

Granitic and Metamorphic Basement Rock

The Santa Rosa Mountains in the southerly portion of the planning area are composed of hard crystalline granite and meta-sedimentary rock, which was emplaced more than 65 million years ago and forms the basement rock of the region. The Little San Bernardino Mountains in the northerly planning area consist of Pre-Cambrian metamorphic rocks with similar engineering properties as the materials underlying the Santa Rosa Mountains. These rocks are typically non-water bearing, except where extensively jointed and fractured, and therefore have low to moderately low permeabilities. They are typically rounded boulders that perch precariously on steep slopes. Boulders pose a rockfall hazard to areas adjacent to and downgradient from these slopes.

Greater slope instability may occur along northeasterly and southwesterly facing slopes, given the general northwesterly trending shear and fracture zones contained in these granites, and perhaps to a greater degree in the meta-sedimentary rock of the Little San Bernardino Mountains. Mitigation of rockfall hazards is best accomplished by avoiding development on steep slopes and implementing structure setbacks at the toe of slopes. Detailed mapping of precarious rocks may also facilitate avoidance of rockfall hazards and help determine adequate setback distances.

Quaternary Conglomerate

Quaternary conglomerate underlies the Indio Hills, although minor traces of this unit also occur in the southern planning area, primarily along the margins of the valley. The conglomerate underlying the Indio Hills is referred to as Ocotillo Conglomerate and contains pebble to cobble-sized sub-rounded clasts of locally derived gneisses and granite, with a lesser amount of basic volcanic rocks, limestone and pegmatite. The distribution and thickness (greater than 2,000 feet) of this unit is evidence of rapid rates of deposition and subsidence in the Salton Trough during the last 2 million years. Because boulders exceeding 10 feet in diameter are known to occur in these units, a primary engineering concern is the generation and removal of oversized materials during grading.

Quaternary Alluvium

Alluvial deposits, which are shed from the Santa Rosa and Little San Bernardino Mountains, as well as the Indio Hills occur within the mouths of drainages in the southern, northern and central portion of the General Plan planning area, respectively. Much of the developed portion of the City of Palm Desert is constructed on alluvium. These deposits have been laid down rapidly, without being saturated, and are therefore susceptible to collapse upon the introduction of irrigation water. Where alluvium consists of clay and/or silt layers, irreversible subsidence and compaction may occur as a result of ground water withdrawal.

Sand Dune Deposits

Aeolian, or wind-deposited, sediments occur both north and south of Interstate-10 and cover much of the Coachella Valley floor. These deposits typically consist of reworked alluvium, which has been picked up by strong winds and redistributed as silty, fine to medium-grained sands that now form sand dunes and sand fields. A thick accumulation of these wind-blown sands, known as the Palm Springs Sand Ridge, has formed a broad, elongated and southeast trending ridge which rises as much as 120 feet above the surrounding desert floor. Engineering concerns associated with sand dune deposits include sand deposition, wind erosion, and collapsible soils.

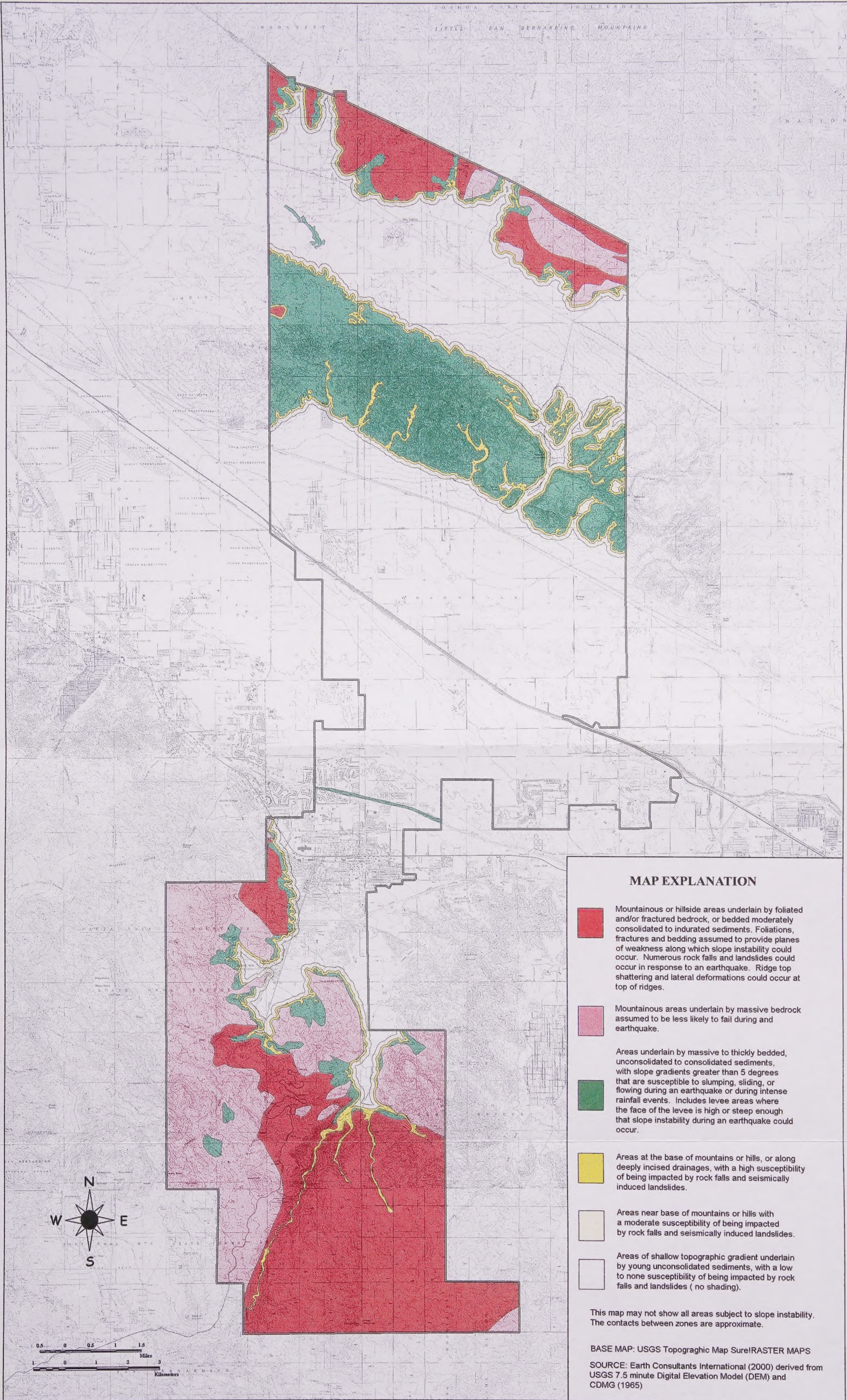
GEOLOGIC HAZARDS

Slope Instability

Slope stability is dependent upon several factors, including rock type, pore water pressure, and slope steepness. Although the granitic and metamorphic rock, which comprises the Santa Rosa and Little San Bernardino Mountains in the planning area, are generally considered grossly stable, the steepness of the slopes often results in locally precarious rocks that could fall as a result of seismic ground shaking or intense rainfall. In addition, the mountainous terrain includes foliation, joints, fractures, and intrusive dikes which could act as potential failure surfaces and planes of weakness. Areas within the planning area, which are susceptible to slope instability, are illustrated in Exhibit V-1. Any proposed development in these areas would benefit from site-specific evaluation of potential slope instability hazards.

Collapsible Soils

Soil collapse, or hydroconsolidation, occurs when soils undergo a rearrangement of their grains and experience a loss of cohesion or cementation, resulting in substantial and rapid settlement even under relatively low loads. This phenomenon typically occurs in recently deposited, Holocene soils deposited in an arid or semi-arid environment. Wind-deposited sands and silts, and alluvial fan and mudflow sediments deposited during flash floods are particularly susceptible to hydroconsolidation. Man-made fills, which are loose and unconsolidated, may also be subject to collapse. When these soils are saturated from irrigation water or a rise in the groundwater table, pores and voids between the soil particles are removed, and the soils collapse.

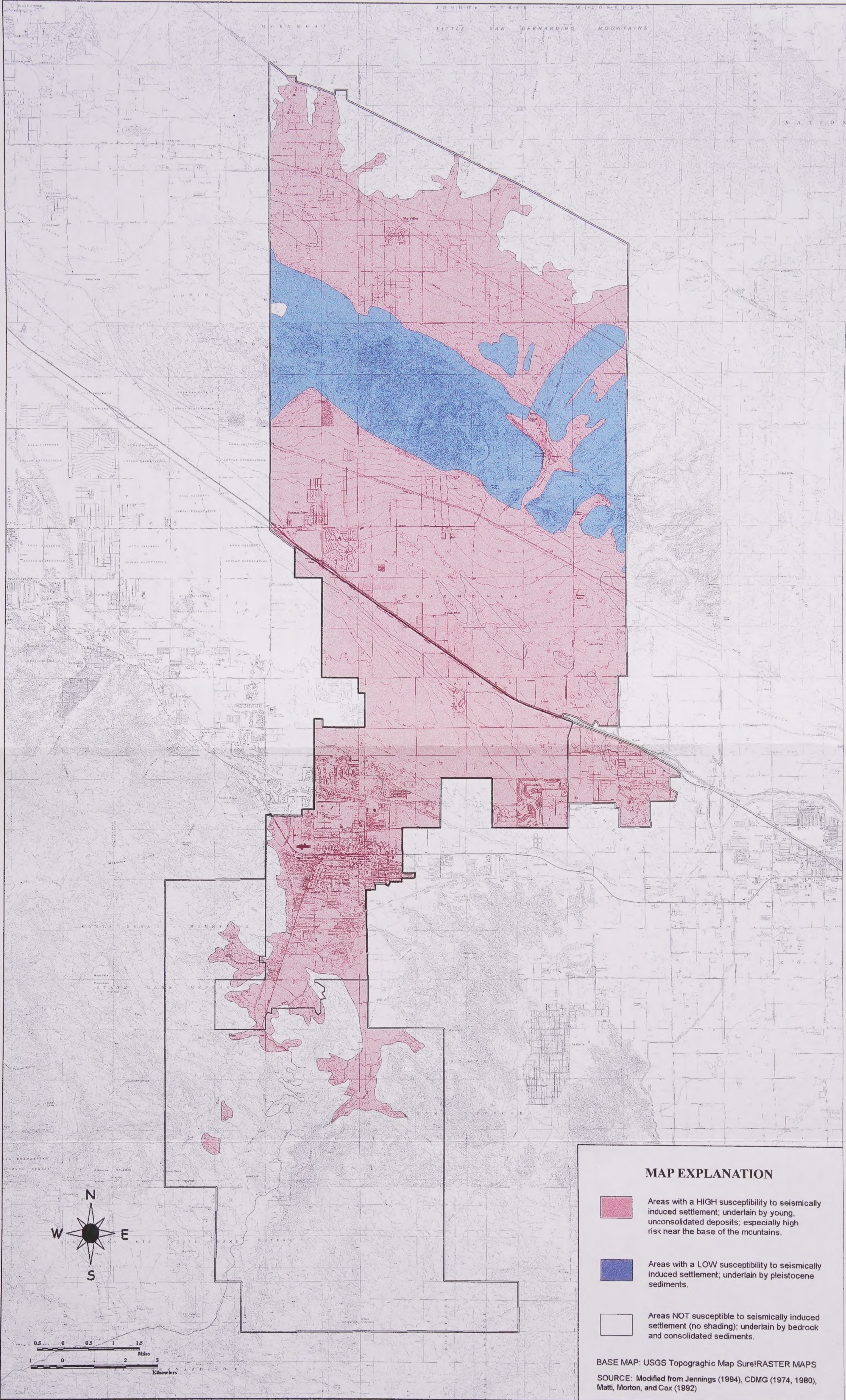


MAP EXPLANATION

-  Mountainous or hillside areas underlain by foliated and/or fractured bedrock, or bedded moderately consolidated to indurated sediments. Foliations, fractures and bedding assumed to provide planes of weakness along which slope instability could occur. Numerous rock falls and landslides could occur in response to an earthquake. Ridge top shattering and lateral deformations could occur at top of ridges.
-  Mountainous areas underlain by massive bedrock assumed to be less likely to fail during and earthquake.
-  Areas underlain by massive to thickly bedded, unconsolidated to consolidated sediments, with slope gradients greater than 5 degrees that are susceptible to slumping, sliding, or flowing during an earthquake or during intense rainfall events. Includes levee areas where the face of the levee is high or steep enough that slope instability during an earthquake could occur.
-  Areas at the base of mountains or hills, or along deeply incised drainages, with a high susceptibility of being impacted by rock falls and seismically induced landslides.
-  Areas near base of mountains or hills with a moderate susceptibility of being impacted by rock falls and seismically induced landslides.
-  Areas of shallow topographic gradient underlain by young unconsolidated sediments, with a low to none susceptibility of being impacted by rock falls and landslides (no shading).

This map may not show all areas subject to slope instability. The contacts between zones are approximate.

BASE MAP: USGS Topographic Map Sure!RASTER MAPS
SOURCE: Earth Consultants International (2000) derived from USGS 7.5 minute Digital Elevation Model (DEM) and CDMG (1965)



MAP EXPLANATION

-  Areas with a HIGH susceptibility to seismically induced settlement; underlain by young, unconsolidated deposits; especially high risk near the base of the mountains.
-  Areas with a LOW susceptibility to seismically induced settlement; underlain by pleistocene sediments.
-  Areas NOT susceptible to seismically induced settlement (no shading); underlain by bedrock and consolidated sediments.

BASE MAP: USGS Topographic Map Sure! RASTER MAPS
SOURCE: Modified from Jennings (1994), CDMG (1974, 1980), Matti, Morton, and Cox (1992)



Earth Consultants International
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Phone (714) 282-8121 Fax (714) 998-0971
www.earthconsultants.com



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City Limits: _____

City Planning Area: _____

DATE: September 10, 2001



**PALM DESERT
GENERAL PLAN**

Exhibit V-2

**Seismically Induced
Settlement in the
Palm Desert Planning Area**

Soil collapse can result in the cracking of walls and foundations, tilting or sagging of floors, malfunctioning of doors and windows, and other structural damage. Alluvial fan deposits at the base of the Santa Rosa Mountains and wind-blown deposits in the northerly portion of the planning area are vulnerable to hydroconsolidation. Soil sampling and laboratory testing should be required in these high risk areas to determine the potential risk of collapsible soils. Collapse potential may be mitigated by removal and recompaction (over-excavation) of soils under optimum moisture conditions, pre-saturation of foundation soils, and improvements to post development site drainage. Saturation of foundation soils after construction should be avoided, and positive drainage away from the foundation should be maintained.

Expansive Soils

Expansive soils are those with a significant amount of clay that have the ability to give up water (shrink) or take on water (swell). The change in volume exerts significant pressure on loads, such as buildings, that are placed on the soils. Excessive swelling and shrinkage cycles can result in distress to improvements and structures.

Because of the relatively significant amounts of clay present in the lacustrine (produced by lakes) deposits of large lakes that once inundated the Coachella Valley, expansive soils are considered a hazard in the Palm Desert planning area. The City's grading and building codes require expansion testing. Mitigation may be achieved by the use of reinforced steel in foundations, drainage control devices, and over-excavation and backfilling with non-expansive soils. In addition, homeowners should be educated about maintaining positive drainage away from structural foundations so that foundation soils are not allowed to become saturated.

Ground Subsidence

Ground subsidence is the gradual settling or sinking of the ground surface with little or no horizontal movement. This phenomenon is associated with the extraction of oil, gas, or groundwater from below the ground surface, with a resultant loss in volume, but may also occur as a result of an earthquake. In the Coachella Valley, it is associated with the extraction of groundwater and the lowering of deep subsurface water pressures. Water contained in subsurface clay layers is squeezed out, and the clay is compacted by overlying sediments. Subsidence can result in the disruption of structures that are sensitive to slight changes in elevation, such as wells, canals, and sewer pipelines. It can also result in changes to surface drainage, reductions in aquifer storage, and the formation of earth fissures.

Subsidence as a result of groundwater withdrawal is one of the major environmental constraints facing the City of Palm Desert. Since the late 1970s, the regional demand for groundwater has exceeded the supply, and the ground water basin in the Coachella Valley is currently in a state of overdraft. According to the Coachella Valley Water District's "Coachella Valley Draft Management Plan" (2000), as much as 7 centimeters of subsidence occurred in the Palm Desert area between 1996 and 1998. Preliminary results of a recent U.S. Geology Survey indicate that future water levels in the Palm Desert area are expected to decline more than 200 feet, and will likely increase the rate of subsidence. According to a recent study performed by the U.S. Geological Survey, the most severe subsidence in the Coachella Valley is in a two-square mile area north of College of the Desert in the City of Palm Desert, which is declining at a rate of about 1.25 inches per year.

Mitigation of this hazard will require a regional approach to groundwater conservation and recharge. Currently, groundwater recharge in the Palm Desert area is minimal. The Coachella Valley Water District operates a pilot recharge facility south of Lake Cahuilla near Avenue 62 and Madison Street in La Quinta, and has demonstrated that recharge at this location is feasible. The U.S. Geological Survey plans to take precise elevation measurements every 2 to 3 years to determine the extent of subsidence in the Coachella Valley. Continued monitoring of well water levels will also help assess the relationship between groundwater overdraft and regional subsidence. (For more information about groundwater resources and conservation efforts, refer to the Water Resources Element.)

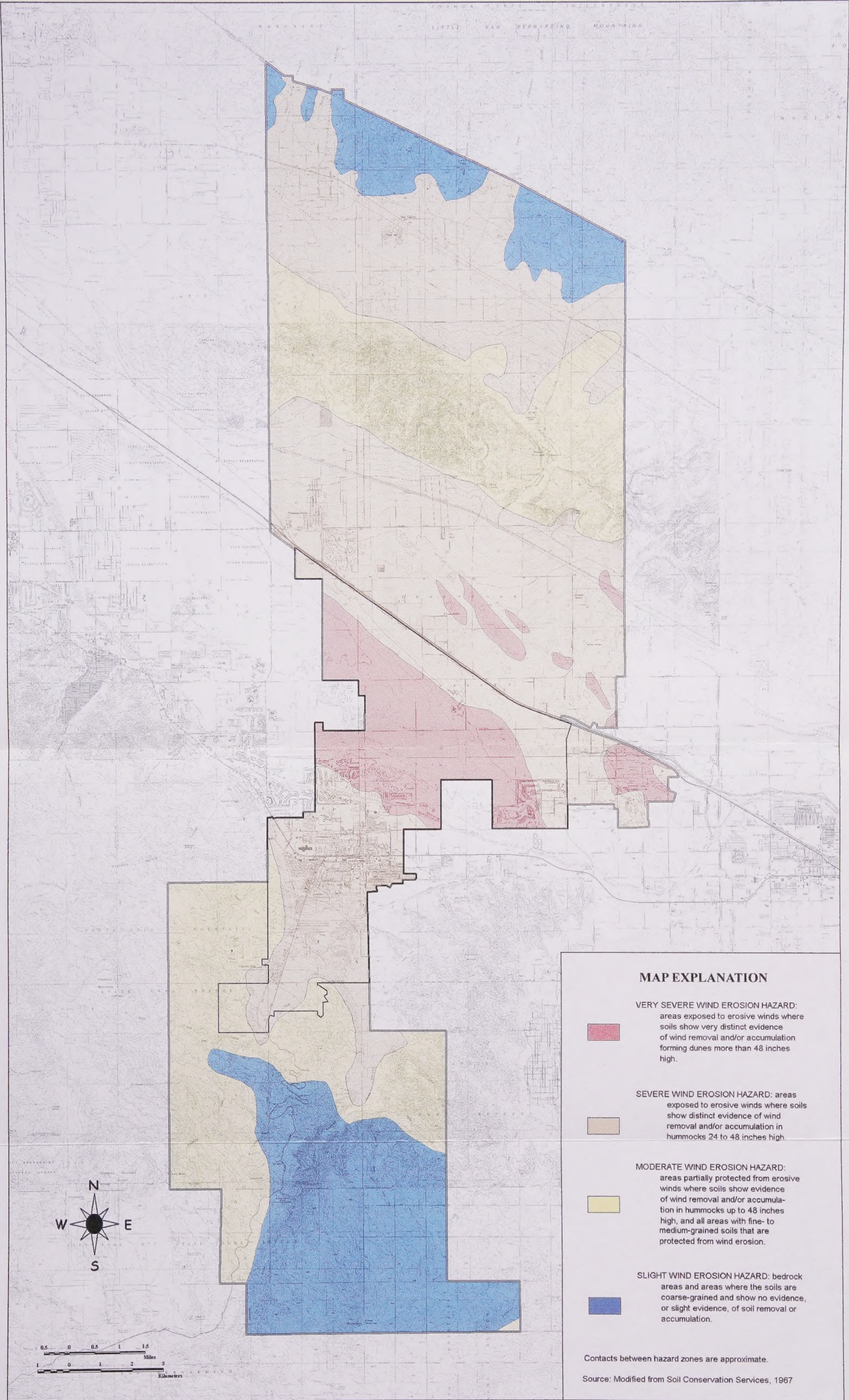
Wind Erosion

Most of the developed portion of the planning area, including land generally between Interstate-10 and Highway 111, is highly susceptible to wind erosion. Wind erosion occurs on dry, sandy, finely granulated soils and involves the removal of soil from one place in its deposition to another. Wind erosion is initiated by wind forces exerted against the ground. In the Coachella Valley, the prevailing winds originate from the San Geronio Pass to the west, and follow the central axis of the valley in a southeasterly direction. Wind hazard zones in the General Plan planning area are illustrated in Exhibit V-3.

Wind erosion results in the deterioration of soil structure, and nutrient and productivity losses, as well as sediment transport and deposition. The presence of sand and dust particles in the air can constitute a major health risk to humans, causing respiratory damage and discomfort. Dust storms can affect traffic safety, and the abrasive effects of blowing sand can damage buildings, fences, vehicles, crops, and vegetation. Blowing sand collects on streets, driveways, and other areas where it must be removed at considerable expense. As more development occurs near the central axis of the valley and into high-wind hazard areas, additional mitigation measures need to be implemented.

Increases in the amount of wind-blown sand in the City of Palm Desert are related to episodic flooding of the Whitewater River floodplain and other major drainages to the west. The composition of the Whitewater River floor consists of typically coarse sands, gravels and cobble. However, during major flood events, large quantities of sand and gravel are deposited on the river floor and are exposed within the floodplains. Mitigation of wind-blown sand will be directly related to mitigation of the flood potential of the Whitewater River.





MAP EXPLANATION

VERY SEVERE WIND EROSION HAZARD: areas exposed to erosive winds where soils show very distinct evidence of wind removal and/or accumulation forming dunes more than 48 inches high.

SEVERE WIND EROSION HAZARD: areas exposed to erosive winds where soils show distinct evidence of wind removal and/or accumulation in hummocks 24 to 48 inches high.

MODERATE WIND EROSION HAZARD: areas partially protected from erosive winds where soils show evidence of wind removal and/or accumulation in hummocks up to 48 inches high, and all areas with fine- to medium-grained soils that are protected from wind erosion.

SLIGHT WIND EROSION HAZARD: bedrock areas and areas where the soils are coarse-grained and show no evidence, or slight evidence, of soil removal or accumulation.

Contacts between hazard zones are approximate.
Source: Modified from Soil Conservation Services, 1967

REGIONAL SEISMIC ASSESSMENT

Because much of southern California is located along the boundary between the Pacific and North American tectonic plates, the region is susceptible to potentially strong seismic activity. Relative to the North American Plate, the Pacific Plate is moving in a northwesterly direction at an estimated rate of 50 millimeters per year. The main break, which marks the actual plate boundary, occurs along the San Andreas fault, which crosses the northerly portion of the Palm Desert General Plan planning area. Approximately 70% of the movement between the Pacific and North American Plates is accommodated by the San Andreas fault. The remaining motion is distributed between the Eastern Mojave Shear Zone and several sub-parallel faults of the San Andreas fault, including the San Jacinto, Whittier-Elsinore, Newport-Inglewood, Palos Verdes, and several offshore faults.

The City of Palm Desert and the General Plan planning area are located in the western portion of the Salton Trough, which is the northward extension of the Gulf of California. The trough is a tectonic (fault controlled) depression that began forming about 5 million years ago. As a result of several millimeters of tectonic subsidence per year, and ongoing erosion of sands and gravels from the surrounding mountains, the Coachella Valley is filled with as much as three miles of sediment bearing fresh and fossil marine waters.

MEASURING SEISMIC HAZARDS

The intensity of seismically-induced ground shaking at a given site is a complex interaction of many factors, but of primary importance are the magnitude of the earthquake, the distance from the epicenter, the type of bedrock or soil materials between the epicenter and the site, and the topographic features of the site. Earthquake severity is classified and measured according to magnitude and seismic intensity (*Richter Magnitude Scale*).

Magnitude is a measure of the amount of energy released when a fault ruptures, as measured on the Richter scale. Each whole number step in magnitude on the scale represents a ten-fold increase in the amplitude of the waves on a seismogram and about a 31-fold increase in the amount of energy released. For example, a 7.5 Richter magnitude earthquake is about 31 times more powerful than a 6.5 Richter magnitude quake.

Seismic intensity is a qualitative estimate of the damage caused by an earthquake at a given location. The most commonly used seismic intensity scale is the *Modified Mercalli Intensity* (MMI) Scale, which is based upon observed damage to structures, other physical events, and people's reactions to a quake. The scale includes twelve levels of intensity, ranging from I (tremor not felt) to XII (total damage). The effects of a quake on masonry and other buildings are an important part of characterizing seismic intensity on the MMI scale.

Seismologists, geologists, engineers, and urban planners evaluate potential future seismic hazards of a region using maximum credible and maximum probable earthquake modeling. The maximum credible earthquake (MCE) represents the largest earthquake likely to occur on a fault or fault segment. The maximum probable earthquake (MPE) is the earthquake most likely to occur in a specified period of time, such as 30 to 500 years.

The magnitudes of maximum credible and maximum probable earthquakes are typically estimates, which are calculated by seismologists based on fault length, faulting type, and other faulting characteristics. These methods of forecasting help engineers, scientists, and planners evaluate the seismic hazard of a particular region, plan for emergency situations, and establish and enforce adequate structural design parameters.

Faults are also characterized by their frequency of movement. To prevent development from being sited directly on the trace of an active fault, the California Alquist-Priolo Earthquake Fault Zoning Act of 1972 has defined the following terms: active, potentially active, and inactive faults. An “active” fault is one which has proven displacement of the ground surface within about the last 11,000 years (within the Holocene Epoch). A “potentially active” fault shows evidence of movement within the last 1.6 million years, although the U.S. Geological Survey has modified the time period in this definition to 750,000 years. An “inactive” fault is one which has not moved in the last 11,000 years, as determined by direct geologic evidence, such as trenching.

MAJOR FAULTS AFFECTING THE PLANNING AREA

Earthquakes can result in substantial property damage, the loss of public services and facilities, and loss of life. Strong ground shaking is the geologic hazard that has the greatest potential to severely impact the Palm Desert planning area. Depending on its intensity, seismic ground shaking can result in landslides, ground lurching, structural damage or destruction, and liquefaction. It can also provide the impetus for other hazards, including fire, disruption of essential facilities (such as water, sewer, gas, electric, transportation, communications, drainage), release of hazardous materials, and flood inundation resulting from dam or water tank failure.

The San Andreas and San Jacinto fault systems have the greatest potential to impact the General Plan planning area and are discussed in detail below. The Coachella Valley and San Bernardino Mountain segments of the San Andreas fault pass through the northerly portion of the planning area. No evidence of active or potentially active faulting occurs within the southern planning area, including within the Palm Desert city limits, although a major earthquake on the San Andreas fault could create smaller secondary displacements within the planning area. The Anza segment of the San Jacinto fault zone occurs approximately 10 miles southwest of the planning area. The locations of these faults, in relation to the planning area, are illustrated in Exhibit V-4.

San Andreas Fault

The closest major fault system to the City of Palm Desert is the San Andreas, which passes through the northerly portion of the planning area. The San Andreas is a right-lateral transform fault, which extends for more than 600 miles from the Salton Sea to Cape Mendocino. The last major earthquake to occur on the southern San Andreas was the magnitude 8.0 Fort Tejon earthquake in 1857.

According to the Working Group on California Earthquake Probabilities (WGCEP), the southern portion of the San Andreas is divided into three segments. From north to south, they include the Mojave, San Bernardino Mountains, and Coachella Valley segments. The boundary between the San Bernardino and Coachella Valley segments occurs in the northerly planning area. A 1995 WGCEP report indicates that there has been an increase in regional earthquake activity since 1985, and the stress towards failure has increased on parts of the San Andreas fault.

The Coachella Valley segment is the southernmost of the San Andreas fault zone segments, and the least likely of the segments to fail in the next 30 years (22% likelihood of rupturing). It extends from the Salton Sea on the southeast to the Indio Hills on the northwest, and crosses the northerly portion of the planning area. Although paleoseismic studies indicate that the average time interval between earthquakes on the Coachella Valley segment is about 230 years, the most recent rupture occurred about 300 years ago.

The San Bernardino Mountains segment is also located within the planning area, and extends from the Coachella segment on the southeast to the Mojave segment on the northwest. It consists of a near-vertical fault segment at the base of the San Bernardino Mountains and a complex segment of compressional and oblique faulting near the San Geronio Pass. The San Bernardino segment is considered the most likely to fail within the next 30 years, with a 28% chance of rupturing. It last ruptured in 1812, although the Landers earthquake series of 1992 may have accelerated the potential for another great earthquake on this segment by 8 to 22 years, according to the Geotechnical Background Report for the City of Palm Desert General Plan, April 5, 2001.

The Mojave segment represents the northernmost segment of the southern San Andreas fault system. Although it does not occur within the planning area, it is possible that rupture of the Mojave segment could initiate simultaneous rupture on the San Bernardino and/or Coachella Valley segments, potentially causing damage to the Palm Desert area.

San Jacinto Fault

The San Jacinto fault is a northwesterly trending, predominantly right-lateral strike-slip fault, which extends about 175 miles in length and is capable of producing magnitude 6.5 to 7.5 earthquakes. Its slip rate is between 7 and 17 mm/year, and it has historically produced more large earthquakes than any other fault in southern California. The Anza segment of the San Jacinto fault zone is located approximately 10 miles southwest of Palm Desert and has a 17% likelihood of rupturing over the next 30 years.

Elsinore Fault

The Elsinore fault zone is one of the largest in southern California, but historically has been one of the quietest. It extends more than 140 miles in length and occurs approximately 30 miles southwest of the City of Palm Desert. The Elsinore fault has a slip rate of about 5.0 mm/year, and is capable of generating magnitude 6.5 to 7.5 earthquakes.

Potential Earthquake Sources for the Planning Area

The table below describes potential earthquake sources for the Palm Desert planning area, including their potential slip rates and magnitudes.

Table V-1
Potential Earthquake Sources for the Palm Desert Planning Area

Fault Name	Distance from Planning Area	Slip Rate (mm/year)	Maximum Design Earthquake (Mmax)
San Andreas			
Southern Segment (combined)	0 miles	24	7.4
San Bernardino Segment	0 miles	24	7.2
Coachella Valley Segment	0 miles	24	7.0
San Jacinto			
Anza Segment	10 miles	12	7.2

Source: "Geotechnical Section of the Technical Background Report to the Safety Element of the Palm Desert General Plan," prepared by Earth Consultants International.



SEISMICALLY INDUCED GEOTECHNICAL HAZARDS

Ground Shaking

Seismically induced ground shaking is the most significant potential geotechnical hazard facing the Palm Desert planning area. Given the City's proximity of the San Andreas and San Jacinto faults, the urban core of the City has the potential to experience very high and extremely high ground shaking values of about 50% of the force of gravity, with a 10% chance of such a seismic event occurring in 50 years. These are probabilistic values, which combine all seismic sources in the area and assess the likelihood of each source to generate an earthquake. These values are among the highest in southern California and are the result of the City's proximity to major fault systems with high earthquake recurrence rates.

The effects of ground motion on structures are difficult to predict. Depending on the intensity of the quake, the distance from the epicenter to the site, the composition of soils and bedrock, building design, and other physical criteria, ground shaking may cause no, little, or major structural damage or destruction. In general, peak ground accelerations and seismic intensity values decrease with increasing distance from the causative fault. However, local conditions, such as soft soils, shallow ground water, and the presence of ridge tops, could amplify the effects of seismic waves and result in higher localized accelerations. The Uniform Building Code, California Building Code, and Unreinforced Masonry Law are the primary tools used by local agencies to ensure seismic safety in structures (see Legislation sections below).

Liquefaction

Liquefaction occurs when loose, saturated, sandy sediments are subjected to ground vibrations greater than 0.2 g and experience a total or substantial loss of shear strength. During liquefaction, affected soils behave like a liquid or semi-viscous substance and can cause structural distress or failure due to ground settlement, a loss of load-bearing capacity in foundation soils, and the buoyant rise of buried structures. Liquefaction typically occurs where the groundwater table is within 50 feet of the ground surface.

The liquefaction hazard is considered low throughout most of the Palm Desert planning area, including land within the City limits and north of the City. Although strong ground shaking of relatively long duration can be expected, and loose, recently deposited sediments cover a large portion of the planning area, the water table is not within 50 feet of the ground surface. It is feasible that ground water levels could rise to within 50 feet of the ground surface where perched conditions and ground water barriers associated with the San Andreas fault can produce conditions that facilitate liquefaction. However, recent water consumption trends indicate that local water levels are dropping.

Liquefaction hazards in the planning area are illustrated in Exhibit V-5. The exhibit presents liquefaction susceptibility based primarily on sediment type. As mentioned above, ground water levels in the planning area must rise to within 50 feet of the ground surface for liquefaction susceptibility to be of significant concern in the planning area.

Seismically Induced Settlement

Under certain circumstances, strong ground shaking can cause the densification of soils, resulting in local or regional settlement of the ground surface. This type of ground failure results when loose granular, cohesionless soil grains become tightly packed due to the collapse of voids and pore spaces. Recently deposited alluvial sediments and artificial fills that are not properly compacted are especially susceptible to this hazard. Effects can include structural damage and damage to water, sewer, and other subsurface pipelines.

Within the Palm Desert planning area, floodplains and larger drainages underlain by late Quaternary alluvial sediments may be susceptible to seismically induced settlement. Sites near the base of natural hills, also referred to as valley margins, may be particularly vulnerable as a result of differential settlement where bedrock and alluvial deposits are in contact.

Seismically Induced Rockfalls and Landslides

Strong ground motions can result in landslides, rock slides and rock falls, particularly where saturated ground conditions exist. In the planning area, the potential for landslides to occur is especially high where there is a high seismic potential, rapid uplift and erosion resulting in steep slopes and deeply incised canyons, highly fractured and folded rock, and rock with inherently weak components such as silt or clay layers.

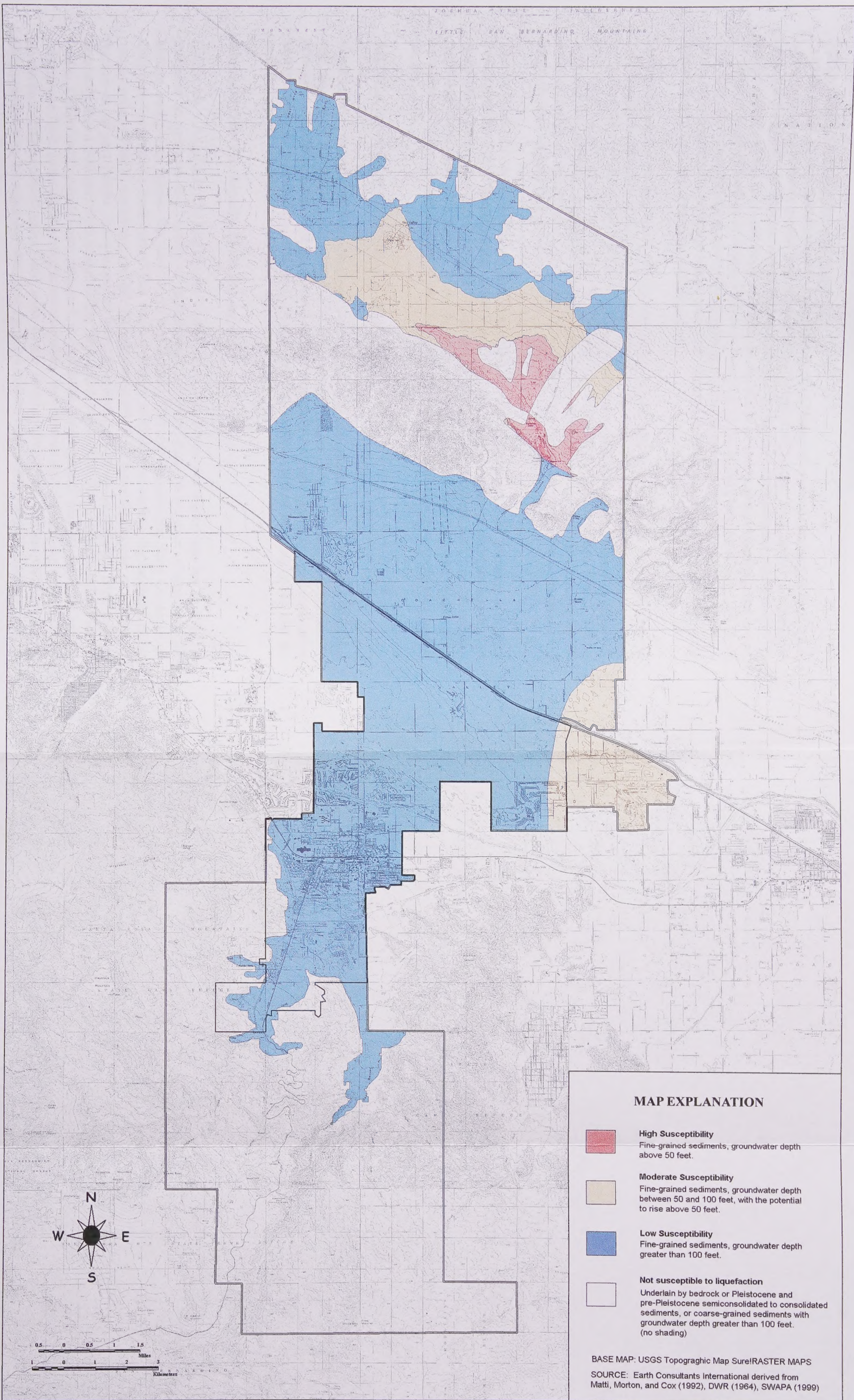
The northernmost and southernmost portions of the Palm Desert planning area are most susceptible to seismically induced slope failure, as these areas occur within or adjacent to the steep terrain of the Little San Bernardino and Santa Rosa Mountains. Moderate risk is associated with land in and adjacent to the Indio Hills.

Deformation of Sidehill Fills

Another hazard associated with strong seismic ground shaking is the deformation of sidehill fills, which can result in minor to severe property damage. Sidehill fills are artificial fill wedges typically constructed on natural slopes to create roadways or level building pads. Strong ground shaking may result in cracking at the cut/fill contact area, differential settlement in the fill wedge, and bulging on the slope face. This phenomenon has occurred most often in relatively thin fills of 9 meters or less placed near the tops of narrow ridges. Hillside grading designs within the planning area may be susceptible to this hazard, and the likelihood of its occurrence should be evaluated during site-specific geotechnical investigations.

Ridgetop Fissure and Shattering

Ridgetop fissuring and shattering is thought to be the result of intense amplification or focusing of seismic energy due to local topographic features. Linear fault-like fissures and shattering of surface soils on the crests of steep, narrow ridgelines occurred during the 1989 Loma Prieta and 1994 Northridge earthquakes. This phenomenon can result in severe structural damage, particularly if it occurs on relatively high (greater than 100 feet), narrow (typically less than 300 feet wide) ridges flanked by slopes steeper than about 2.5:1 (horizontal:vertical). The potential exists for ridgetop fissuring and shattering to occur on the steep, narrow slopes of the Santa Rosa and Little San Bernardino Mountains in the Palm Desert planning area. However, given that development does not typically occur on these slopes, the impacts of these phenomena on man-made structures and human life is not expected to be significant.



Seiches and Seismically Induced Inundation

Seiches refers to seismically-induced oscillation or sloshing of water contained in reservoirs, lakes, ponds, swimming pools, and other enclosed bodies of water. This hazard is dependent upon the frequency of seismic waves, distance and direction from the epicenter, and site-specific design criteria of the enclosed body of water. In the event of strong ground shaking, the degree of damage to small bodies of water, such as swimming pools, in the planning area would likely be minor. However, seiching could result in the failure of larger bodies of water, including water tanks, retention basins, recharge basins and other water storage structures, and could result in the inundation of land and structures downgradient.

Damage to water storage tanks could significantly hinder efforts to suppress fires and limit the supply of potable water after a major earthquake. Design elements, such as baffles, are warranted to reduce the potential for seiches in tanks, open reservoirs, and ponds where overflow or structural failure may cause damage to nearby properties. The American Water Works Association (AWWA) Standards for Design of Steel Water Tanks includes new criteria for the seismic design of water tanks. In addition, groundwater recharge basins should be designed and engineered to address this seismic hazard.

The Colorado River Aqueduct extends across the northerly boundary of the planning area, near the base of the Little San Bernardino Mountains. It lies extremely close to and parallels the San Bernardino Mountains and Coachella Valley segments of the San Andreas fault zone. A surface-rupturing earthquake on either of these segments could damage the aqueduct and release large volumes of water. Depending on the level of damage, repairs to the aqueduct could take several weeks.

MITIGATION OF EARTHQUAKE HAZARDS

Most injuries and loss of life associated with earthquakes are related to the collapse of buildings and structures. Although it is impossible to prevent earthquakes from occurring, their destructive effects can be minimized. Comprehensive hazard mitigation measures include the identification and mapping of potential hazards, prudent planning, the enforcement of building codes, and the retrofitting and rehabilitation of weak structures.

Alquist-Priolo Earthquake Fault Zoning Act

California's Alquist-Priolo Earthquake Fault Zoning Act, which was signed into law in 1972, is intended to mitigate the hazards of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The Act requires the State Geologist to delineate "earthquake fault zones" that show evidence of Holocene surface displacement along one or more of their segments, and are clearly detectable by a trained geologist as a physical feature at or just below the ground surface. The boundary of an earthquake fault zone is generally about 500 feet from major active faults, and 200 to 300 feet from well-defined minor faults. Cities and counties are required to withhold development permits for sites within earthquake fault zones until geologic investigations demonstrate that the sites are not threatened by surface displacement associated with future faulting. State law dictates which types of development must be regulated, but local agencies may be more restrictive than state law.

The California Department of Conservation, Division of Mines and Geology (DMG) has completed Alquist-Priolo Earthquake Fault Zone mapping for the General Plan planning area. However, much of the mapping is more than 25 years old, and there are currently no plans to update. In 2000, the County of Riverside updated fault hazard mapping and designated Special County Studies Zones for all unincorporated areas of the General Plan planning area. No active faults or state/county special studies zones are mapped within the current city limits.

Seismic Hazards Mapping Act

Because the above described Alquist-Priolo Earthquake Fault Zoning Act addresses only the hazard of surface fault rupture, the state enacted the Seismic Hazards Mapping Act (1990), which addresses non-surface rupture earthquake hazards. Among the hazards addressed by this act are strong ground shaking, liquefaction, and seismically induced landslides. The Division of Mines and Geology is required to provide local governments with seismic hazard zone maps that identify areas susceptible to these and other ground failure hazards. When development projects are proposed within the designated hazard zones, geological hazard investigations are required. The DMG has not completed mapping under the Seismic Hazards Mapping Act for the Palm Desert planning area, and no mapping is scheduled to occur (2001) in the near future. However, Riverside County has completed liquefaction and landslide hazard mapping for unincorporated lands in the planning area. Specific studies conducted for the City General Plan Update also analyzed and mapped this hazard.

Uniform Building Code

The Uniform Building Code (UBC) is the primary tool used by local agencies to ensure seismic safety in structures. It defines minimum lateral forces needed to resist seismic shaking, purpose of the building, seismic zone, type of structural system, building configuration and height, and soil profile types that result in various degrees of shaking. The City of Palm Desert adopted the 1997 version of the Uniform Building Code in 1999. In 2000, the International Building Code replaced the UBC.

California Building Code

The California Building Code (CBC) is a modified version of the UBC, which is tailored for California earthquake conditions. It is included in Title 24 of the California Administrative Code and includes stringent earthquake provisions for critical structures, including public schools and hospitals. The City of Palm Desert adopted the current 1998 edition of the CBC in 1999.

Seismic Retrofitting

Although new building codes address new construction, the retrofitting and strengthening of existing structures is also of critical importance. Potentially hazardous buildings may include unreinforced masonry (URM) buildings, wood frame structures, pre-cast concrete structures, tilt-up buildings, and mobile homes. Currently, there are no federal or state mandated criteria which establish the required structural seismic resistance capacity of structures. The City of Palm Desert has no Unreinforced Masonry ordinance or inventory requirements for other potentially hazardous structures. However, it has adopted a code for the Abatement of Dangerous Buildings

under Title 21 of its Municipal Code, which sets forth regulations governing the classification and abatement of dangerous buildings in general. Four unreinforced masonry buildings have been identified and retrofitted in Palm Desert. The City should consider implementing a program by which non-URM potentially hazardous structures are identified, inventoried, and strengthened.

FUTURE DIRECTIONS

With substantial challenges posed by local seismic and geotechnical conditions, the City will need to rely upon the regulations and guidelines set forth in the Alquist-Priolo Earthquake Fault Zoning Act, CEQA Statutes and Guidelines, Uniform/International Building Code, zoning ordinance, and other applicable legislation to adequately mitigate hazards addressed in this Element. The City will benefit from close coordination with state, regional, and county agencies in establishing and maintaining an up-to-date information database of geotechnical and seismic conditions in the region. Furthermore, the City's development review process must assure that development proposals are thoroughly evaluated with regard to geotechnical and seismic safety, that all necessary special studies are conducted and reviewed, and that comprehensive mitigation measures are implemented.

As more development occurs in the City planning area and Coachella Valley, and the demand for groundwater resources increases, the threat of subsidence will continue to impact the Palm Desert community. Mitigation of this hazard will require a regional approach to groundwater conservation and recharge. The City is responsible for actively participating in these efforts to assure that hazards associated with subsidence are minimized.

GOAL, POLICIES, AND PROGRAMS

Goal

Maximized protection of human life, land, and property from the effects of seismic and geotechnical hazards.

Policy 1

The City shall establish and maintain an information database containing maps and other information which describe seismic and other geotechnical hazards occurring within the City boundaries, sphere-of-influence and planning area.

Program 1.A

Consult and coordinate with surrounding communities, the California Division of Mines and Geology, Riverside County, other applicable state and federal agencies, and professional engineering geologists to establish, improve and routinely update the database.

Responsible Agency: Community Development Department, California Division of Mines and Geology, Riverside County, Consulting Geologists

Schedule: 2003-04; Continuous

Policy 2

In accordance with state law, all development proposals within designated Alquist-Priolo Earthquake Fault Zones shall be accompanied by appropriate geotechnical analysis.

Program 2.A

Prepare an informational handout to be distributed to developers, property owners, and other appropriate parties, which describes the format and contents of geotechnical and fault investigations that must be carried out within Alquist-Priolo Earthquake Fault Zones.

Responsible Agency: Community Development Department, City Engineer/Consulting Engineering Geologist

Schedule: As such zones fall under City jurisdiction.

Program 2.B

Establish a cooperative agreement with the County Geologist, State Geologist, contract state-certified geologist, or contract geological engineer to review and determine the adequacy of geotechnical and fault hazard studies prepared within the City.

Responsible Agency: Community Development Department, City Engineer/Consulting Engineering Geologist

Schedule: Immediately

Policy 3

Development in areas identified as being subject to slope instability shall be adequately engineered to eliminate geotechnical hazards or shall be avoided.

Program 3.A

The City shall make available copies of the General Plan Slope Instability Susceptibility Map and discourage development within areas so designated, or require detailed geotechnical analysis and mitigation measures that reduce potential hazards to insignificant levels.

Responsible Agency: Community Development Department, City Engineer/Consulting Engineering Geologist

Schedule: Immediately; Continuous

Policy 4

Establish and maintain a program by which all potentially hazardous structures, which pose a threat due to inadequate seismic design, engineering or construction, are identified, inventoried, and strengthened.

Program 4.A

Identify inadequately designed and/or constructed structures throughout the City. Prepare and distribute informational handouts describing appropriate methods of retrofitting and possible sources of funding to facilitate the rehabilitation of such structures.

Responsible Agency: Building and Safety Department, City Engineer/Consulting Engineering Geologist

Schedule: 2003-04

Policy 5

To minimize the potential impacts of subsidence due to extraction of groundwater, the City shall actively support and participate in local and regional efforts at groundwater conservation and recharge.

Program 5.A

Consult and coordinate with the Coachella Valley Water District, U.S. Geological Survey, and other appropriate agencies to routinely monitor groundwater levels and surface elevations in the City.

Responsible Agency: Community Development Department, City Engineer, Coachella Valley Water District, U.S. Geological Survey

Schedule: Continuous

Program 5.B:

Continue and expand existing water conservation efforts, and coordinate with local districts, state water agencies and CVAG members in a coordinated effort to eliminate overdraft of local aquifers and affect a level of groundwater recharge adequate to address associated ground subsidence hazards.

Responsible Agency: Community Development Department, City Engineer, Coachella Valley Water District, U.S. Geological Survey, CVAG

Schedule: Continuous

Policy 6

The City shall coordinate and cooperate with public and quasi-public agencies to assure the continued functionality of major utility systems in the event of a major earthquake.

Program 6.A

Contact and establish working relationships and strategies with Coachella Valley Water District, Southern California Edison, Imperial Irrigation District, Southern California Gas Company, Verizon, and other appropriate agencies to strengthen or relocate utility facilities, and take other appropriate measures to safeguard major utility distribution systems to the greatest extent practical.

Responsible Agency: Community Development Department, Public Works Department, City Engineer, Public and Quasi-Public Utilities

Schedule: 2003-04; Continuous

Program 6.B

Encourage and cooperate with CalTrans to stabilize hazardous slopes and strengthen bridges, elevated roadways, and other structures along state highways, which may be subject to failure during major seismic events.

Responsible Agency: Public Works Department, City Engineer, CalTrans

Schedule: Continuous

Policy 7

New septic tank leach fields, seepage pits, drainage facilities, and heavily irrigated areas shall be located away from structural foundations and supports to minimize the potential for localized collapse of soils.

Program 7.A

The City may require that development applications include plans indicating the location of leach fields, seepage pits, drainage facilities, and water-dependent landscaping so that City staff may evaluate the potential for ground saturation. City staff may require their location away from foundations and other design/engineering measures, as appropriate.

Responsible Agency: Community Development Department, Building and Safety Department, City Engineer

Schedule: Immediate

Policy 8

The City shall cooperate and actively participate in the development and/or distribution of earthquake preparedness information to City residents and local businesses.

Program 8.A

Confer and coordinate with local utility companies, health facilities, police and fire departments, and school districts to coordinate education of the general public regarding appropriate action before, during, and after earthquakes and other disasters.

Responsible Agency: Community Development Department, Emergency Preparedness Manager, City Engineer, Riverside County Sheriff's Department, Riverside County Fire Department, DSUSD, PSUSD, public and quasi-public utilities

Schedule: 2003-04; Continuous

FLOODING AND HYDROLOGY

PURPOSE

By providing discussion and setting forth its goals, policies, and programs, the Drainage Element of the Palm Desert General Plan addresses potential drainage and flooding hazards within the community. The foremost goal of this Element is to protect the general health, safety and welfare of the community from potential flood and associated hazards. It references and coordinates with other elements of the General Plan, which also address threats to the lives and property of the community's residents. The potential for and extent of major future flooding is also evaluated. It is the intention of the community to facilitate, plan and implement the phased development of flood control facilities, both project-specific and Citywide. Provisions for open space and multiple uses, wildlife, and pedestrian and equestrian corridors within major drainages are also planned.

BACKGROUND

Other General Plan Elements related to this Element include the Geotechnical Element, which addresses some of the City's most primary environmental threats. The Hazardous Materials Element is also related, as it discusses the potential of transporting and storing hazardous and toxic material on the surface and underground. The Circulation Element, which addresses the need for and availability of adequate access and evacuation routes in the event of a major community disaster or threat, is another related Element. Policies and programs set forth in the Land Use Element direct the location of open space, essential public facilities, and developed areas which have some effect on flooding issues, and their potential for damage.

State policies and regulations require that the General Plan address potential flooding hazards within a community and offer mitigation measures to lessen their impacts. Chapter 73 of the Statutes of California, 1939, mandates the joint planning of area-wide drainage plans affecting local jurisdictions. In addition, Government Code Section 8401 (c) requires that local governments plan, adopt, and enforce land use regulations for flood plain management. This legislation, also known as the Cobey-Alquist Flood Plain Management Act, also establishes requirements for receiving state financial assistance for flood control measure. California Government Code Section 8589.5 and 65302 (g) require the mapping of areas subject to inundation in the event of dam failures.

Desert Conditions and Flood Hazards

Located in the northern Coachella Valley, the City of Palm Desert enjoys a subtropical desert climate. The San Jacinto and Santa Rosa Mountains flank the City on the west, with the Little San Bernardino Mountains bordering it on the east. Mean annual rainfall is very low from the desert floor into the foothills, ranging from 4 to 6 inches per year and averaging about 5 to 6 inches along the Little San Bernardino foothills. In some years measurable rainfall has been reported within the planning area. Summer daytime temperatures can occasionally exceed 125°F and winter temperatures rarely fall below freezing. The surrounding mountain slopes generally receive rainfall that increases with elevation. The mountains and upper elevations of the planning area are also generally cooler, with an approximate 5°F drop with every 1,000-foot increase in elevation.

Potential flooding problems in the City of Palm Desert, its Sphere-of-Influence and study area are associated with storm flows in the Whitewater River and its tributaries, flooding on the alluvial fans, and to runoff associated with the Indio Hills and the foothills of the San Bernardino and Little San Bernardino Mountains.

Floods that impact the City can be attributed to three different types of storm events: general winter storms, combining high-intensity rainfall and rapid melting of the mountain snowpack; tropical storms out of the southern Pacific Ocean; and summer thunderstorms. A summer storm poses greater threat of flooding to the valley than a winter storm because of its high intensity and short duration of rainfall. The eccentricity of this type of storm can be characterized by the impact of the September 1976 summer-type storm, which resulted in no significant damage to the cities of Rancho Mirage, Indian Wells and La Quinta, yet caused extensive damage to Palm Desert.

Most of the rainfall occurs during the cooler months of November through March, but occasional high-intensity thunderstorms and tropical storms occur in late summer and early fall. Although the ground may be generally dry at the beginning of a storm, sufficient amounts and intensities of rainfall can saturate the surface, substantially reducing percolation and increasing runoff.

Development also increases runoff by creating large areas of impermeable surfaces. Increased runoff upstream can contribute significantly to downstream damage.

Major historic storm events are used to gauge the potential for future flooding. Benchmark storms used by the U.S. Army Corps of Engineers to calculate the most intense credible storm include the storm of September 24, 1939. It was centered over Indio and consisted of a thunderstorm that preceded a major storm off the west coast of Mexico. This intense storm generated 6.45 inches of rain in a period of 6 hours. Tropical storm Kathleen is another example of the storm runoff potential in the area. During September 9–11, 1976, very heavy general rainfall was generated over a three-county area, with Palm Desert receiving 6.81 inches of rain. The surrounding hills and mountains received as much as 14 inches, with rainfalls generally increasing with elevation.

Local and Regional Flood Control

The generation and management of stormwater runoff are typically divided into two separate categories, local and regional drainage, which are ultimately interrelated. Local drainage is either defined by the limited size of the drainage or to the generation of runoff and facilities capturing and conveying runoff from over a larger geographic area. Regional drainage ultimately picks up and conveys local drainage through the careful integration of these two systems.

Regional Flood Control: the Coachella Valley Water District and the Riverside County Flood Control District

The Coachella Valley Water District (CVWD) and the Riverside County Flood Control District are responsible for the management of regional drainage within and in the vicinity of Palm Desert, including rivers, major streams and their tributaries, and areas of significant sheet flooding. Both Districts are empowered with broad management functions, including flood control planning and construction of drainage improvements for regional flood control facilities, as well as watershed and watercourse protection related to those facilities. To carry out their mandates, the Districts also have powers of taxation, bonded indebtedness, land and water rights acquisition, and cooperative partnerships with local, state, and federal agencies. An elected Board acts as the official decision-making body of CVWD, while the Riverside County Board of Supervisors is the official decision-making body of that District.

Palm Desert Regulation of Local Drainage

While CVWD and the County have the primary responsibility, in close cooperation and coordination with the City, and are responsible for managing regional drainage in and around the community. They play a key role in the management of local drainage. The City, however, remains directly responsible for the management of local drainage. The preservation of lands constrained by topography or drainage, including steep slopes, areas rich in vegetation and cover, and alluvial plains and drainage channels greatly reduces runoff and preserves the capacity of downstream facilities. The planned integration of on-site stormwater detention facilities, where possible and appropriate, significantly reduces the needed size of downstream facilities, while creating opportunities for groundwater recharge, and enhanced open space and recreation areas.

The effectiveness with which the City and Districts manage drainage issues will have a direct effect on the scale, complexity and cost of future flood control facilities. The cost-effectiveness of prevention and on-site management should be actively integrated into community land use planning and regulation, recognizing significant physical and financial constraints in many areas of the City.

FEMA and the Federal Flood Rate Maps

Many of the areas of the United States subject to flooding from 100-year storms have been mapped by the Federal Emergency Management Agency. The resulting documents are the FEMA Flood Insurance Rate Maps (FIRMs), which serve as the basis for determining the need for and availability of federal flood insurance. Exhibit V-6 is a compilation of the data presented in three

corresponding FIRM Community Panels (maps). The FEMA maps for the City of Palm Desert planning area designate lands within the 100-year flood plain (Zone A). These areas include washes, channels and areas subject to sheet flow flooding. The maps do not cover the northern portion of the General Plan area and some of the Agua Caliente tribal lands within the City Limits.

According to the Flood Insurance Study for the City of Palm Desert (FEMA, 1996), the potential flooding sources in Palm Desert are the Whitewater River and the canyons discharging onto the alluvial fans upon which the City is situated. Flood flows in alluvial fans often include unpredictable braiding and fanning.

The Whitewater River flows easterly through the northern half of the City. The Palm Valley Storm Water Channel runs northerly along the west side of the City of Palm Desert. It conveys floodflows from Cat, Dead Indian, and Carrizo Canyons to the Whitewater River. The Dead Indian Channel conveys flows from Carrizo Canyon and several small tributary channels along the east side of Dead Indian Canyon alluvial fan away from areas downslope of the fan to the Ironwood Channel and the Living Desert debris basin, located on the Deep Canyon alluvial fan, east of Palm Desert in Indian Wells. Flow from the debris basin is then conveyed by the Deep Canyon Channel to the Whitewater River.

Flood hazards associated with a 100-year event on the alluvial fans have been reduced as a result of improvements to the Palm Valley Stormwater Channel and the construction of other flood control structures in Palm Desert and neighboring Indian Wells and Riverside County.

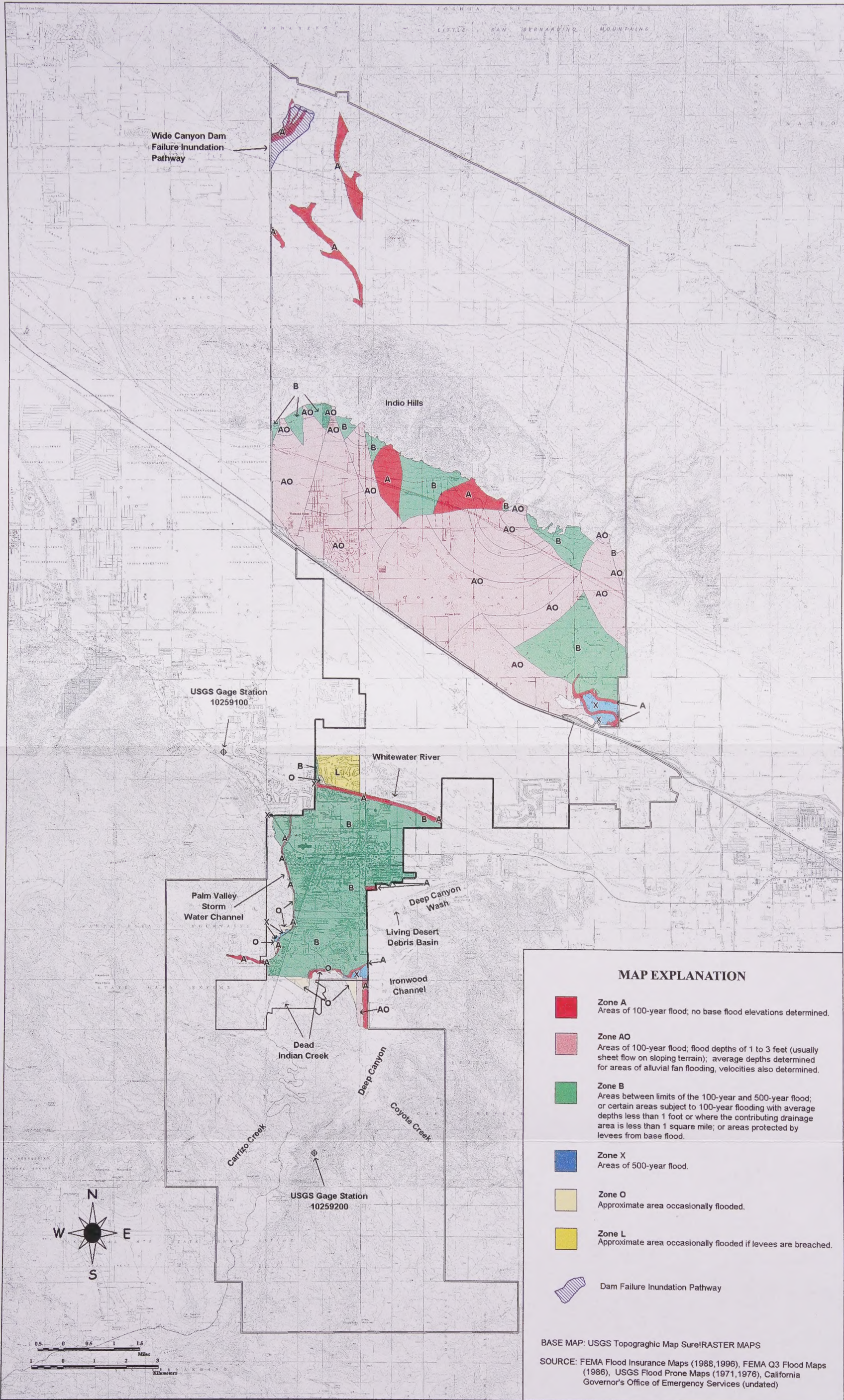


The FEMA maps show that the 100-year flood zone for the Whitewater River is generally confined to the area along the channel of the river and its tributaries. Greenbelts and golf courses have been developed in portions of the Whitewater River Channel the Coachella Valley and in the City of Palm Desert as part of a network of channels that collect flood flows on the upstream side of a project, carry it safely through the project, and disperse it on the downstream side.

However, given the low permeabilities of the bedrock underlying the surrounding hills and mountains of the City, heavy runoff from these areas during strong storms cannot be prevented. These areas of 100-year flood potential include the southern-most city limits, and most of the planning area located north of US I-10 and south of the Indio Hills. A few areas in the western Sky Valley area are also mapped by FEMA as 100-year flood zones.

The Coachella Valley Water District has proposed significant improvements in the northern portion of Palm Desert. Amendments have not yet been approved by FEMA, but CVWD expects that these proposed changes, when implemented, will reduce the flooding hazard in this area. Each of the applicable flood zones is briefly described below.

- A:** Areas of 100-year flood: base flood elevations have not been determined.
- AO:** Areas of 100-year flood; flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depth determined for areas of alluvial fan flooding; velocities also determined..
- AF:** Floodway areas in Zone AO (mostly contained by levees).
- B:** Areas between limits of 100-year and 500- year flood; or certain areas subject to 100-year flooding with average depths less than 1 foot or where the contributing drainage area is less than 1 square mile; or areas protected by levees from the base flood.
- X:** Areas of 500-year flood;



Palm Desert Comprehensive Storm Drain Master Plan

The current Palm Desert Comprehensive Storm Drain Master Plan, prepared in March, 1993, is a strategy for the construction, maintenance and funding of storm drainage improvements in the City. Though a conceptual study, it has been implemented by the Master Drainage Plan ordinance and serves as the operational tool for technical guidelines and developer requirements regarding site retention or installation specifics. Financial plans, however, have not been implemented.

Backbone Drainage Systems

Capital projects such as dikes, levees, channels, and debris and detention/retention basins have been constructed to manage project-specific, community and regional drainage systems in the community. Designing, financing and constructing these facilities are significant challenges and important opportunities. Methods of flood controls and their costs are weighed against the economic impacts likely to result from major flooding; in some areas, flood control improvements are frequently necessitated by development itself, which creates its own runoff management problems.

The regional drains in the City Limits include the Whitewater Channel, the Deep Canyon Channel, and the Palm Valley Channel. The Mid-Valley Regional Channel, proposed by the Coachella Valley Water District, will run adjacent to the Southern Pacific Railroad tracks through the City of Palm Desert.

Whitewater River Storm Channel

The Whitewater River Storm Channel is the main drainage facility in the City and the Coachella Valley and a major thoroughfare of runoff in the Coachella Valley. It is a non-natural channel generally following the traditional path of the Whitewater River. Its gradient as it passes through Palm Desert is about 13 feet per mile. Dikes vary between 16 and 20 feet in height along the 50-mile long channel. It has a capacity of 82,000 cubic feet per second or 130,000 acre-feet within a 24-hour period. The Whitewater River flows easterly through the northern half of Palm Desert, drains approximately 720 square miles, and generates a 100-year storm discharge of approximately 37,000 cfs and a standard project discharge of approximately 78,000cfs. The Coachella Valley Water District is continuing its program of channel revetment or concrete armoring to protect the channel from stormwater erosion.

Deep Canyon Stormwater Channel

The Deep Canyon Stormwater Channel was completed in 1940 by CVWD in conjunction with developers. This channel, along with a series of dikes and a spreading area, was constructed to divert major storm flows around Palm Desert to the Whitewater River Channel near Point Happy approximately three and one-half miles east of the present City Limits. Although a major conveyance system in this area, the Deep Canyon Channel will not accept any additional runoff generated from development. Any further development in this area will be forced to retain all the incremental runoff produced within that specific development.

Palm Valley Stormwater Channel

Completed in 1983, the Palm Valley Stormwater Channel lies adjacent to the westerly City Limits of Palm Desert and provides for the diversion of Stormwater produced in the mountain regions westerly of the channel. The Palm Valley Stormwater Channel runs northerly along the west side of the city, draining areas southwest of the City Limits and, for the most part, west of Monterey Avenue (State Route 74), carrying runoff into the Whitewater Channel. Prior to its construction in 1983, a dike was constructed south of the Ironwood Country Club to divert stormwaters from Dead Indian, Cat, and Carrizo Canyons around Palm Desert.

Upgrading of the Palm Valley Channel through Palm Desert in order to capture flows from Dead Indian and Carrizo Canyons was achieved by CVWD. Previously, Dead Indian and Carrizo Canyon flows joined Deep Canyon flows through Indian Wells. With the completion of the Palm Valley Channel, only Deep Canyon flows now travel through the Deep Canyon Stormwater Channel. The cities of Indian Wells, Rancho Mirage and Palm Desert each formed redevelopment agencies to finance the upgrading of the Palm Valley Channel. This \$16.9 million project, completed in 1983, includes debris basins at the mouth of Dead Indian and Carrizo Creeks, a concrete-lined channel from Dead Indian and Carrizo Creeks and a concrete-lined channel from the Dead Indian debris basin to the Whitewater River Stormwater Channel following the general course of the existing Palm Valley Channel west of Highway 74.

The City of Palm Desert has adopted a Drainageway, Floodway, and Watercourse Ordinance that regulates development on flood plains by preventing construction in areas designated as flood prone. Development is permitted in these areas once floodflow hazards are eliminated.

Areas in the City that have received flood control improvements are those subject to potentially destructive floods with a probable frequency of at least once every 100 years (100-year flood). Significant capital investments have been made in the community where these threats occur, and are listed on the following Table.

**Table V-2
Major Drainage Channels**

Channel	Year Built (current improvements)	Cost (Mil)	Funding
Deep Canyon Stormwater Channel	1940		CVWD/Development RDAs
Palm Valley Stormwater Channel	1983	\$16.9	(Indian Wells, Rancho Mirage and Palm Desert)
San Pascual Channel (2 phases)	1981, 1983-4	700,000	drainage fees and general fund*
Whitewater River Channel			RCFWCD CVWD
Mid-Valley Stormwater Channel	1990 -		CVWD / Development

*funding source as projected by City Public Works staff

Mid-Valley Stormwater Channel

Coachella Valley Water District's Feasibility Study of March 1990 discusses as a preferred alternative the construction of a regional trapezoidal drainage channel to be built adjacent to the Southern Pacific Railroad tracks. Starting at Date Palm Drive in Cathedral City and continuing southeasterly to about one-half mile east of Cook Street, it is designed to collect runoff south of the Southern Pacific Railroad from the northern slope of Palm Springs Sand Ridge.

The Federal Emergency Management Agency (FEMA) does not identify the Mid-Valley project area as a flood hazard zone. However, analysis prepared by Bechtel Engineering for CVWD indicates that development in the project area, without the benefit of the 100-year on-site retention, would generate a storm discharge of 4,827 cfs (cubic feet per second) in the vicinity of Ramon Road, and 7,201 cfs at Monterey Avenue.

Storm discharge at the Mid-Valley's confluence with the Coachella Valley Channel would total 20,837 cfs, indicating the potential of the drainage area to generate significant stormwater runoff once development occurs. Testifying to the effectiveness of the City's 100-year storm retention program for new development in the project area, mitigation is expected to reduce the 100-year stormwater discharge at Ramon Road to 1,280 cfs, Monterey Avenue to 1,426 cfs, and Coachella Valley Channel to 12,690 cfs. The Mid-Valley is sized based upon development policy that requires all development in the drainage watershed to retain 100 percent of the 100-year storm on site. On a case-by-case basis, the CVWD and the City may allow development in proximity to the channel to discharge the difference in runoff between the vacant and developed state to be directly discharged into the channel.

Regional Drainages and Facilities

Wide Canyon Flood Control Dam

A review of records maintained at the California Office of Emergency Services indicates that the Wide Canyon Flood Control Dam has the potential to inundate the northwestern portion of the General Plan Area. Wide Canyon Dam is located several miles east of Desert Hot Springs, in Riverside County, and maintained by the Riverside County Flood Control District. Wide Canyon Dam is an earthfill dam, built in 1968, with a dam height of 84 feet and hydraulic height of 74 feet.

The statutes governing dam safety are defined in Division 3 of the California State Water Code. It empowers the California Division of Safety of Dams to monitor the structural safety of dams that are greater than 25 feet in dam height or 50 acre-feet in storage capacity.

Local Drainages and Facilities

Local drainages can pose a significant flood hazard to existing and future development in the City. The Master Drainage Plan for the City of Palm Desert (1993) documents the existing runoff and flooding conditions for the City and its Sphere-of-Influence, and presents proposed drainage systems, conceptual design and cost estimates and financial analysis for funding techniques for future implementation.

Dead Indian Channel

Dead Indian Channel, extending downstream from above the corporate limits, diverts flood flows from the eastern half of Dead Indian Channel to Ironwood Channel and the Diving Desert Debris Channel. It connects to a topographic knob approximately 700 feet downstream of the City Limits, and collects flows that have been directed against the foothills on the eastern edge of the alluvial fan. It then conveys them around a bend and easterly to the Ironwood Channel.

Ironwood Channel

Ironwood Channel conveys flows from Dead Indian Channel, Palm Desert Channel, and portions of Deep Canyon to the Living Desert Debris basin. An outlet channel to Deep Canyon Channel, which then conveys the flow to the Whitewater River, conveys flow from the debris basin.

Portola and Haystack Channels

Portola and Haystack channels are located north of the Living Desert debris basin in Palm Desert and Indian Wells, and provide flood protection by diverting flow away from populated areas toward Deep Canyon Channel.

Drainage Areas

Zone 1

Zone 1 is bounded on the east and west sides by the City Limits, on the north by the Whitewater Channel, and on the south by the Deep Canyon Storm Channel.

Drainage Area #1A

This drainage area runs north from Cahuilla Way to the Whitewater Channel, is bounded on the west by the Palm Valley Channel and on the east by Monterey Avenue (State Route 74). The two existing drainage facilities in this area are a private line conveying flows from the Palm Desert Town Center to the Palm Valley Channel, and a system along the southerly property line south of Hedgehog Street. Both lines are adequate for the conveyance of the 25-year storm.

Drainage Area #1B

This drainage area is bounded on the east by the Palm Valley Channel and on the west by the City boundary. The northern boundary is Park View Drive and the southern boundary is at the intersection of the Palm Valley Channel and the western City limit. This area consists of relatively flat terrain in the north and hillside in the south. Two systems have been designed for this region. The Joshua Road storm drain (Line 1B-1) conveys runoff in the Joshua Road area to the Palm Valley Channel. The second storm drain system carries flows from Painters Path to Fred Waring Drive. This system heads east on Fred Waring Drive and terminates in the Palm Valley Channel. Both of these systems are adequate to convey the 25-year storm to the Palm Valley Channel and will relieve these areas of the troublesome runoff. No facilities have been developed for the hillside area due to the difficulty of maintenance and other factors.

Drainage Area # 1C

Drainage Area #1C is located south of Haystack Channel and north of the Dead Indian Canyon. State Route 74 is the westerly boundary, and Indian Wells is the eastern boundary of this drainage area. Lines 1C-3 and 1C-4 are existing facilities that convey runoff to the Haystack Channel from the western two-thirds of this drainage area.

Drainage Area #1

This area's boundaries extend from just west of Monterey Avenue to just east of San Pascual Avenue, with the Whitewater Channel in the north and El Paseo in the south, and a small area along the Palms to Pines Highway in the south. Existing facilities include a facility designed to carry runoff down Fred Waring Drive (Line 1-2) to the San Pascual Channel (Line 1-7). Line 1-1 carries runoff in Monterey Avenue south to Line 1-2. Another tributary to Line 1-2 is Line 1-3, which conveys runoff north on San Anselmo Avenue. The largest tributary of Line 1-2 is Line 1-4. This line picks up runoff on Palm Desert Drive, conveys the flows to San Pablo Avenue, and continues north until it reaches Line 1-2. Line 1-5 conveys runoff from the College of the Desert south on San Pablo Avenue until it reaches Line 1-2. Flows from Catalina Avenue are conveyed through Line 1-6, which extends north on San Pascual Avenue to Line 1-7.

Drainage Area #2

Drainage Area #2 is located north of the Haystack Channel between the Pines to Palms Highway on the west and just east of Portola Avenue on the east. This area runs north of El Paseo and then follows Drainage Area #1's eastern boundary to the Whitewater Channel. Line 2-1 carries a large amount of the runoff produced in the southern portion of Zone 1. Line 2-1 consists of large drainage facilities that run from Grapevine Avenue north on Portola Avenue to the Whitewater Channel. Line 2-4 extends westward along Grapevine Avenue, picking up a tributary line on Desert Lily Drive. Another existing tributary to Line 2-1 is Line 2-3, a large drainage facility extending west on Shadow Mountain Drive. This extension also picks up runoff on San Luis Rey Avenue to the south down to Ironwood Street.

Drainage Area #3

Drainage Area #3 is confined to Portola Avenue on the west, Deep Canyon Road in the east, and the City Limit to the south and the Whitewater Channel on the north. Line 3-1 is the main line in this drainage area. It extends from Fairway Drive in Deep Canyon Road to Fred Waring Drive, then heads east on Fred Waring Drive, connecting to Line 4-1 at Phyllis Jackson Lane. Line 3-2 is a tributary, collecting flows west of Deep Canyon Road on Palm Desert Drive south. Line 3-3 extends Line 3-1 westward on Fairway Drive collecting runoff generated south of Fairway Drive. Line 3-2A is another tributary to Line 3-1. This line collects flows on Candlewood Street and conveys them to the main line.

A small system on Deep Canyon north of Fred Waring Drive, Line 3-4, collects runoff from the interior streets south on Magnesia Falls Drive and west of Deep Canyon Road and conveys them north to the Whitewater Channel.

Drainage Area #4

The eastern boundary of Drainage Area #4 runs north along the City Limits of Indian Wells, the southern boundary is the City Limit, the western boundary lies just east of Deep Canyon Road, and the northern boundary is the Whitewater Channel. Proposed Line 4-1 is to run northern from Fairway Drive along the City Limits to Highway 111, with a portion of it to run just north of Candlewood to Highway 111. This drainage area tends to flow northeasterly to the City of Indian Wells; therefore, Line 4-1 is designed to intercept these flows.

Zone 2

Zone 2 is bounded by the Whitewater Channel on the south, the Palm Springs Ridge Line on the north, with the City Limits as the east and west boundaries.

Drainage Area #5

Drainage Area #5 is bounded on the west by Monterey Avenue, on the north by the Palm Springs Ridge Line, and on the south by the Whitewater Channel. The eastern boundary extends north from the Whitewater Channel approximately $\frac{1}{2}$ mile east of Portola Avenue to Country Club Drive, then heads east on County Club Drive the Palm Springs Ridge Line.

The main portion of this system runs on Portola Avenue from Frank Sinatra Drive to the Whitewater Channel. Line 5-1 runs on Portola Avenue from the Whitewater Channel to Country Club Drive. This facility is responsible for collecting flows at Portola Avenue conveyed by Country Club Drive and Portola Avenue north of Country Club Drive. This facility also picks up flows from Hovley Lane West.

Drainage Area #6

Drainage Area #6 is bounded on the north by Country Club Drive, on the west by Drainage Area #5's eastern boundary, in the east by the Palm Springs Ridge Line and the City Limit, and on the south by the Whitewater Channel. Proposed lines for this area are currently under consideration, and available for review in the City's Master Drainage Plan.

Zone 3

Zone 3 is bounded on the north by Interstate 10, on the south by the Palm Springs Ridge Line, on the west by Monterey Avenue, and on the east by Washington Street.

Drainage Area #7

This area is bounded on the north by I-10 and on the south by the Palm Springs Ridge Line. The western boundary follows the Palm Desert Adopted Sphere boundary north from the Palm Springs Ridge Line to I-10. The eastern boundary of this area follows Portola Avenue north from the Palm Springs Ridge Line to I-10. In this drainage area only accumulated street flows can be conveyed into the Mid-Valley Channel. Line 7-1 conveys street flows north along the future continuation of Portola Avenue. Line 7-2 picks up street flows at Monterey Avenue and Dinah Shore Drive and conveys them to the Mid-Valley Channel.

Drainage Area #9

Drainage Area #9 is bounded on the north by I-10 and on the south by the Palm Springs Ridge Line. The western boundary is Cook Street and the eastern boundary of this area runs north along the eastern boundary of Section 11 to Country Club Drive, then heads east to the mid-section line of Section 1, and then heads north to I-10. Within this area, approximately 1/2 mile east of Cook Street, the Mid-Valley Channel will head north under I-10.

Line 9-1 conveys street flows east along Frank Sinatra Drive where it connects with Line 9-2, then heads southeast along the northern limit of Palm Valley Country Club paralleling I-10 until approximately 1/2 mile west of Washington Street. At that point, Line 9-2 connects with Line 9-3. Line 9-3 drains the low point of Country Club Drive approximately 1/2 mile west of Washington Street. After the confluence of Line 9-2 and Line 9-3, the system is jacked under I-10 into a channel that will run north to the Mid-Valley Channel.

Drainage Area #10

Drainage Area #10 is bounded on the west by the eastern Boundary of Drainage Area #9, on the north by I-10, on the east by Washington Street, and on the south by the south section line of Section 12. Line 10-1 conveys runoff north along Washington Street in the City of Palm Desert. Street flows in this area are collected on Washington Street and conveyed to a retention basin along I-10.

Zone 4

Zone 4 is bounded on the south and west by Interstate 10, on the north by Ramon Road, and on the east by eastern section lines of Sections 22, 27, and 34. In this zone, north of I-10, only one drainage area was designed for pipe flows. Given the knowledge of the drainage within the existing and proposed developments, no other facilities were designed. The Federal Emergency Management Agency (FEMA) has determined that Zone 4 is located in a Flood Zone and is given AO designation. The depth of flooding in this zone range from two feet at Interstate 10 to four feet at the mouth of Thousand Palms Canyon with flow velocities ranging from six feet per second to nine feet per second.

Drainage Area #11

Drainage Area #11 is bounded on the north by Ramon Road, on the west by the Tri-Palms Development, on the south by the Ivey Ranch Development, and on the east by the east section line of Section 22. Line 11-1 conveys flows along the southern boundary of Section 21 eastward to a retention basin. Line 11-2 conveys flows westward along the southern boundary of Section 22 to the same basin. Line 11-3 runs south along the intersection of these two section to the retention basin.

Options for development of this site range from a park to a golf course fairway or golf course lake. These are a few possibilities for the provision of an aesthetically pleasing retention basin.

Land Use Planning as a Flood Control Strategy

One of the most effective and direct ways to control flooding and limit the threats to lives and property is to approach land use planning thoughtfully and appropriately. Land use planning is consistent with other primary community goals, and can call for the preservation of natural vegetation in the foothills and mountains, which function as natural water sheds for local drainage and ground water recharge, which can also affect the volume of Stormwater and debris that reach downstream facilities.

Land use planning can also limit human exposure to the hazards of flooding, improvements to storm hazards, and damage. Restrictions on the type and location of structures in the vicinity of major drainages within the community can greatly reduce potential losses. Within the limits of improved and unimproved 100-year floodplains, development should be severely limited and regulated, with prohibitions of the construction of structures for human habitation.



Within flood zones subject to sheet flooding, development approvals should be conditioned to assure protection of improvements from flood damage. Protection measures may include raising the finished floor level above the flood depth projected for the surrounding area and providing protection against scouring. Such measures are incorporated into Riverside County Flood Control's District's Ordinance #458 as the standard which applies to FEMA Zones A and AO (see discussion of FEMA Zones, above). In the northern planning area, this ordinance is particularly relevant to lands south of the Indio Hills. These lands are managed by CVWD, which applies the County's ordinances in its management districts. Until such time as flood protection is provided and removes areas from severe threats of flooding, development in these areas should be carefully regulated.

Non-Point Source of Discharge Elimination Program and the National Pollution Discharge Elimination System (NPDES)

The Clean Water Act of 1972 set goals to restore and maintain water quality by reducing "point source pollution" such as pollutants from industry and sewage treatment facilities. In 1987, amendments to the Act shifted focus to polluted runoff, requiring states to reduce discharges into our waterways. These amendments required the U.S. EPA (Environmental Protection Agency) to formally regulate polluted runoff just as it regulates industry and sewage treatment plants - with permits under the National Pollutant Discharge Elimination System (NPDES). The NPDES program requires communities with populations exceeding 100,000 to apply for a municipal permit. Municipal permits require cities and counties to eliminate or control "non-point source pollution."

In most states, including California, the state administers the NPDES permitting program, rather than the EPA. Nine Regional Water Quality Control Boards administer the program for California. Portions of Riverside County fall under the jurisdiction of three of these Boards: the Santa Ana, the San Diego, and the Colorado River Basin Regional Water Quality Control Boards.

Recognizing that this regulation would affect them all, the Riverside County Flood Control and Water Conservation District, the County of Riverside, the 23 Riverside County cities (excluding Blythe) and the Coachella Valley Water District joined forces to apply for joint NPDES municipal permits, rather than separate ones. This has allowed the "co-permittees" to share resources, eliminate duplicate efforts, and minimize program costs to the public.

The District's service area includes portions of three major river basins: the Santa Ana, the Santa Margarita and the Whitewater, of which the City of Palm Desert is a part. A separate Regional Board regulates each of these three basins. Each Regional Board has issued an NPDES municipal stormwater permit to the District and its respective Co-Permittees.

The program emphasizes pollution prevention, control measure activities, utilization of existing resources and programs, and coordination with regional and state compliance activities. The goals of these activities include the following:

- Eliminate illicit connections and illegal discharges to the storm drain system;
- Promote public awareness and participation through the Program's education program - The Storm Water/Clean Water Protection Program;
- Identify and control stormwater pollution created by industrial and commercial activities;
- Establish stormwater management programs for public agencies to reduce the amount of pollutants that enter and accumulate in storm drains;
- Identify and establish local regulatory control measures for activities that can pollute the storm drain system, such as new development and construction, and residential, commercial and industrial activities;
- Monitor wet and dry weather flows to identify the origin, types, and concentrations of non-point source pollutants;
- Increase existing municipal efforts to clean streets, collect solid waste, and prevent used oil and other hazardous wastes from entering storm drains;
- Develop local ordinances to establish legal authority for cities and counties to regulate stormwater discharges.

Flood Control, Wildlife Habitat and Recreation Enhancement

The controlling of stormwater flows, which is consistent with the goals and policies set forth in the General Plan, should also be viewed as an opportunity for multiple uses, including recreation and wildlife enhancement. Washes, detention/retention basins and channels should be designed with this multi-use function in mind.

In addition to the opportunity to integrate hiking and equestrian trails into these facilities, these areas are consistently frequented by numerous birds and small and large mammals, and can offer meaningful areas for passive enjoyment. As a retreat from the more urban environments of the area, they are important as a source of forage and cover, and offer opportunities for the continued integration of the natural desert habitat into the built environment.

FUTURE DIRECTIONS

The Drainage and Hydrology Element is applied through the direct expression of policies and implementation of programs of the Element, and through the implementation of other General Plan Elements, including Water Resources, Open Space and Conservation, Land Use, and Biological Resources Elements.

The principle and direct implementation of this Element, however, will be accomplished through the enforcement and implementation of regional and City Master Drainage Plans. The Master Plans and their improvements help control and confine the area-wide drainage pattern to more discreet and focused routes where it can be better managed. It may also point to facilities that complement land use patterns, provide cost-effective flood control alternatives, and maximize opportunities for multiple uses, including enhanced groundwater recharge.

The Master Drainage Plans will also set critical parameters for future development along areas subject to area-wide flooding. The Element will also be implemented through the development guidelines and regulations of the Palm Desert Zoning Ordinance, Grading Ordinance, and Subdivision Ordinance.

GOAL POLICIES AND PROGRAMS

Goal

A comprehensive assessment of flooding and other hydraulic hazards in the community, and complete facilities and services effectively protecting lives and property.

Policy 1

Continue to update hydrologic conditions in the planning area, and plan and pro-actively coordinate with other responsible agencies upgrade the City's local and regional drainage system.

Program1.A

Implement the recommendations of the 1993 Master Drainage Plan study. Local regulations and guidelines shall be established which are consistent with the Master Plan of Drainage, direct the management of runoff, and provide for local drainage facilities support the effective use of regional drainage facilities.

Responsible Agencies: Public Works Department, Planning Department

Schedule: Continuous

Program1.B

Capital Improvement Plans for drainage management and control shall be developed, updated and maintained and shall be based upon the Master Drainage Plan project descriptions.

Responsible Agencies: Public Works Department, Planning Department

Schedule: Continuous

Program 1.C

Construction of Master Plan facilities associated with the Mid-Valley Stormwater Channel shall be incorporated in the design of the Mid-Valley Channel.

Responsible Agencies: CVWD, Public Works Department, Planning Department

Schedule: Continuous

Program 1.D

The Whitewater River Channel, the Palm Valley Channel, the Deep Canyon Channel, and Indian Wells drainages in the east of the City shall be the highest priority for improvements to be implemented through the Master Drainage Plan.

Responsible Agencies: Public Works Department, Planning Department

Schedule: Continuous

Program 1.E

Evaluate the need for requiring an upgrade from a 25-year on-site retention to a 100-year on-site retention in crucial northern portions of Zone 4, which are outside the Mid-Valley Channel watershed.

Responsible Agencies: Public Works Department, Planning Department

Schedule: Continuous

Program 1.F

Monitor and periodically update the Master Plan of Drainage to reflect changes in local and regional drainage and flood conditions.

Responsible Agencies: Public Works Department, Planning Department

Schedule: Continuous

Policy 2

Major drainage facilities, including debris basins and flood control channels, shall be designed to maximize their use as multi-purpose recreational or open space sites, consistent with the functional requirements of these facilities.

Program 2.A.

Coordinate and cooperate with responsible regional agencies in achieving multi-use agreements within flood control channels and designing safe, attractive recreational facilities which maintain the functional requirements of the drainage facilities.

Responsible Agencies: Public Works Department, Planning Department, CVWD, RCFCDD

Schedule: Continuous

Program 2.B

Work attentively with responsible agencies to design drainage and flood control facilities that minimize negative aesthetic impacts and retain natural groundcover and vegetation to the greatest extent possible.

Responsible Agencies: Public Works Department, Planning Department, CVWD, RCFCDD

Schedule: Continuous

Policy 3

Continue to actively participate in regional flood control and drainage improvement efforts and to develop and implement mutually beneficial drainage plans.

Policy 4

The City shall cooperate in securing FEMA map amendments, recognizing the importance of redesignation of the 100-year flood plains within the City boundaries and sphere-of-influence.

Responsible Agencies: Public Works Department, Planning Department, FEMA

Schedule: Continuous

Program 4.A

In conjunction with the Coachella Valley Water District, the City shall coordinate and cooperate in the filing of appropriate FEMA application materials to incrementally secure amendments to the Flood Insurance Rate Maps for the City, consistent with existing and proposed improvements.

Responsible Agencies: Public Works Department, Planning Department, CVWD

Schedule: Continuous

Policy 5

Pursue all credible sources of funding for local and regional drainage improvements needed for adequate flood control protection.

Program 5.A

Consider the establishment of Area Drainage Plans or Assessment Districts for purposes of funding necessary drainage improvements in particular geographic areas of the City of Palm Desert.

Responsible Agencies: Public Works Department, Planning Department, Economic Development; Developers

Schedule: Continuous

Program 5.B

Explore County funding, state funding under the Cobey-Alquist Flood Plain Management Act, other State programs, and federal funding options for local and area-wide flood control projects.

Responsible Agencies: Public Works Department, Planning Department, Economic Development, State; County

Schedule: Continuous

Policy 6

All new development shall be required to incorporate adequate flood mitigation measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and the adequate siting of structures located within flood plains.

Program 6.A

Stormwater retention shall be enforced through the development review process and routine site inspection.

Responsible Agencies: Public Works Department, Planning Department

Schedule: Continuous

Policy 7

Assure that adequate, safe, all-weather crossing over drainage facilities and flood control channels are provided where necessary, and are maintained for passage during major storm events.

NOISE ELEMENT

PURPOSE

The intent of the Noise Element is to help assure compatibility of the community's land uses with the existing and future noise environment, and to ensure that any potentially negative effects of noise on the community are minimized or avoided entirely. This Element identifies current (2002) noise conditions within the City, its Sphere-of-Influence and the General Plan study area, and projects future noise conditions in the community resulting from continued growth. Through the implementation of the policies and programs in this Element, current and future potential noise impacts are addressed, with the goal of assuring that the general health, safety and welfare of the community is, to the greatest extent practical.

BACKGROUND

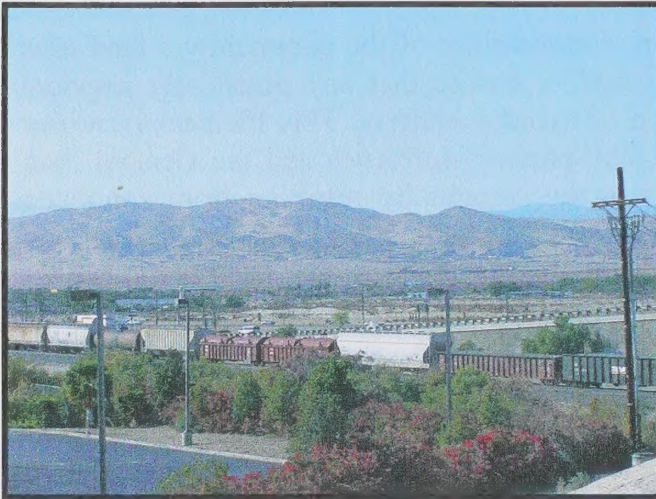
There is a direct relationship between the Noise Element and the Land Use and Circulation Elements. Sensitive land uses, such as housing, schools and medical facilities, can also be adversely affected by community noise levels, are also addressed in the Noise Element. It also has a direct relationship with the Economic Development Element, since low noise levels are an essential characteristic of a resort residential community, and the City's relatively quiet, peaceful atmosphere can be considered a major community asset integral to a high quality of life.

The noise environment can have a significant influence on the health and comfort of the community. Generally, the City enjoys a quiet noise environment, with existing community noise being dominated by local traffic, commercial heating/ventilation equipment, and industrial/manufacturing sources. Motor vehicles are the major source of continuous, excessive noise in the City.



Primary noise generators include traffic on Interstate-10, Highways 111 and 74, Monterey Avenue, Cook Street, Country Club Drive, Fred Waring Drive, Washington Street and others. High noise levels resulting from commercial aviation at the Palm Springs Regional Airport occasionally have an intrusive but intermittent impact on the community's noise environment. However, current airport master plan improvements are projected to further reduce airport noise exposure in Palm Desert.

Freight rail service along the Union Pacific Railroad lines located immediately south of and parallel to I-10 are also responsible for generating substantial noise levels in this area. Other community noise generators include industrial operations, construction activities, special event noise, commercial activities that include live music, home appliances, and lawnmowers and leaf-blowers. Sensitive receptors within the planning area include schools, libraries, and senior care facilities.



The California Department of Health Services has prepared a Model Community Noise Control Ordinance, which was developed in accordance with Section 46062 of the Health and Safety Code to assist local agencies in developing ordinances designed to control and abate noise. The City of Palm Desert has adopted such an ordinance (Chapter 9.24 of the City Municipal Code). The issues addressed in the Noise Element include those set forth in subsection (f) of the California Government Code Section 65032, which requires that the Noise Element identify and evaluate the community's noise problems.

Section 21083.1 of the California Environmental Quality Act (CEQA) mandates adherence to the State Guidelines and empowers communities to determine whether a proposed project may have a "significant effect on the environment." These impacts may range from excessive traffic noise in a residential neighborhood to industrial manufacturing noise impacting a hospital or convalescent home. State guidelines recommend that a community noise control ordinance be adopted for the resolution of local noise complaints.

Community Noise Equivalent Level

Noise is defined as unwanted or undesired sound. The combination of noise from all sources near and far is known as the Ambient Noise Level. A very sudden change in air pressure from the immediate "normal" atmospheric pressure results in airborne sound. For purposes of this discussion, the ambient noise level at a give location is termed "environmental noise".

Understanding environmental noise requires some familiarity with the physical description of noise. The important characteristics of sound include its frequency range, its intensity or loudness, and temporal/time-varying aspect. The decibel (dB), A-weighted (dBA) scale, and Community Noise Equivalency Level (CNEL) are all units of measurement used to describe and numerically weight noise levels.

The unit of measurement describing the amplitude or strength of sound is the decibel. The Community Noise Equivalent Level (CNEL) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of five decibels to sound levels in the evening from 7 p.m. to 10 p.m., and the addition of 10 decibels to sound levels at night between 10 p.m. and 7 a.m.

These additions are made during these time periods because during the evening and night hours there is a decrease in the overall amount and loudness of noise generated, when compared to daytime hours, resulting in an increased sensitivity to sounds. For this reason sounds seem louder during these periods of lower ambient noise and are weighed accordingly. Basically, during these evening and night hours the maximum tolerable overall noise levels should be 5 to 10 dBA lower, and the CNEL number is weighted to assure this bias.

Ranges and Effects of Noise

The most common sounds vary between 40 dB (very quiet) and 100 dB (very loud). Normal conversation is roughly 60 dB at three feet, while serious discomfort can result from 100 dB noise levels. Doubling the sound energy of a noise source only increases the decibel rating by 3 dB. However, due to the logarithmic nature of the sound measuring (decibel) scale and peculiarities of the internal mechanisms of the human ear, a sound must be nearly 10 dB higher than another sound to be judged twice as loud. Physical health, psychological well-being, social cohesion, property values and economic productivity can all be influenced by excessive amounts of noise.

The effects of noise on people can be grouped into three general categories: subjective effects, such as annoyance and nuisance; interference with activities such as conversation and sleep; and physiological effects, ranging from a startle to a hearing loss. When there is an increase in the difference between background or ambient noise and the noise generated from a particularly intrusive source such as, traffic, a barking dog, aircraft or industrial operations, adverse reactions to noise generally intensify. Noise control measures should reduce noise by 5 to 10 dBA in most circumstances to effectively lower the perceived sound. Loud, short duration noises from barking dogs and low-flying aircraft, for example, therefore generally have little impact upon the CNEL levels of an area, because of the averaging techniques used to define CNEL.

The Existing Community Noise Environment

As in most Coachella Valley communities, motor vehicle traffic in the City of Palm Desert is the primary source of noise. Aircraft traffic also contributes an invasive element to the noise environment, to a smaller but occasionally significant extent. In addition, the northwestern portion of the City and the Sphere-of-Influence are notably impacted by the U.S. Interstate-10/Southern Pacific Railroad corridor. Other sources of community noise include mechanical equipment serving resorts, major institutions, and commercial land uses.

Motor Vehicle Noise

The principal noise source measured within the community of Palm Desert is vehicular traffic, which includes automobiles, trucks, buses, and motorcycles (2001). The level of noise produced by vehicular traffic generally fluctuates in relation to the volume of traffic, the percentage of trucks, and average traffic speed. Table V-3 in the pages that follow shows the impacts of traffic and other sources at several locations in the community on local noise environments. The table also shows projected impacts anticipated from General Plan buildout.

Union Pacific Railroad Lines and Interstate-10 Corridor

As mentioned above, portions of both the City and planning area are also impacted by rail and vehicular traffic associated with the Union Pacific Railroad line and U.S. Interstate-10. The passage of trains, although an intrusive noise event, occurs only periodically and with limited duration. More significant is the influence of Interstate-10 traffic noise, which can increase at night due to persistent truck volumes combined with an atmospheric nighttime temperature inversion. This inversion tends to reduce the acoustic attenuation typical of distance over open terrain, making noises seem louder. On a CNEL basis, the calculated combined impacts associated with 2001 Interstate-10 and Union Pacific RR traffic place the 59.7 dB and 75.1 dB contours at 800 feet and 100 feet south of the railroad lines, respectively. The 65 CNEL contour is approximately 430 feet from the tracks and the 60 CNEL contour about 770 feet from the tracks.

Aircraft Noise

Commercial and general aviation operations at the Palm Springs Regional Airport, located west of the City Limits, impact the community of Palm Desert with occasional aircraft noise. The recently updated Airport Master Plan and Part 150 Noise Compatibility Study evaluated airport operations, monitored portions of the noise environment, and projected future noise impacts from planned expansions and increased operations. The flight tracks, or patterns, that aircraft are assumed to follow in the abovementioned noise study indicate limited overflights in Palm Desert.

The peak season 65 CNEL noise contour for year 1993 conditions extends into Palm Desert at the northwestern portion of the city at Dinah Shore Drive. An evaluation of the noise sensitive receptor locations points out the potential for current peak season aircraft noise impacts to existing residential receptors, but does not indicate existing noise impacts to any schools, libraries, or health care facilities.

Mandated changes to the noise standards for jet aircraft has caused the noise contours for 1999 conditions to be substantially smaller. The peak season 65 CNEL noise contour will remain entirely within the City of Palm Springs, without any change to the operation of the airport (other than necessary to meet increased demand).

The Federal Aviation Administration (FAA) recommends that schools not be located within noise contours of 65 CNEL and above. For schools within urban areas, the State of California Noise Standards specify 65 CNEL as the point of general acceptability. The airport's annual 65 CNEL noise contour remains well outside and west of the City of Palm Desert and its General Plan study area.

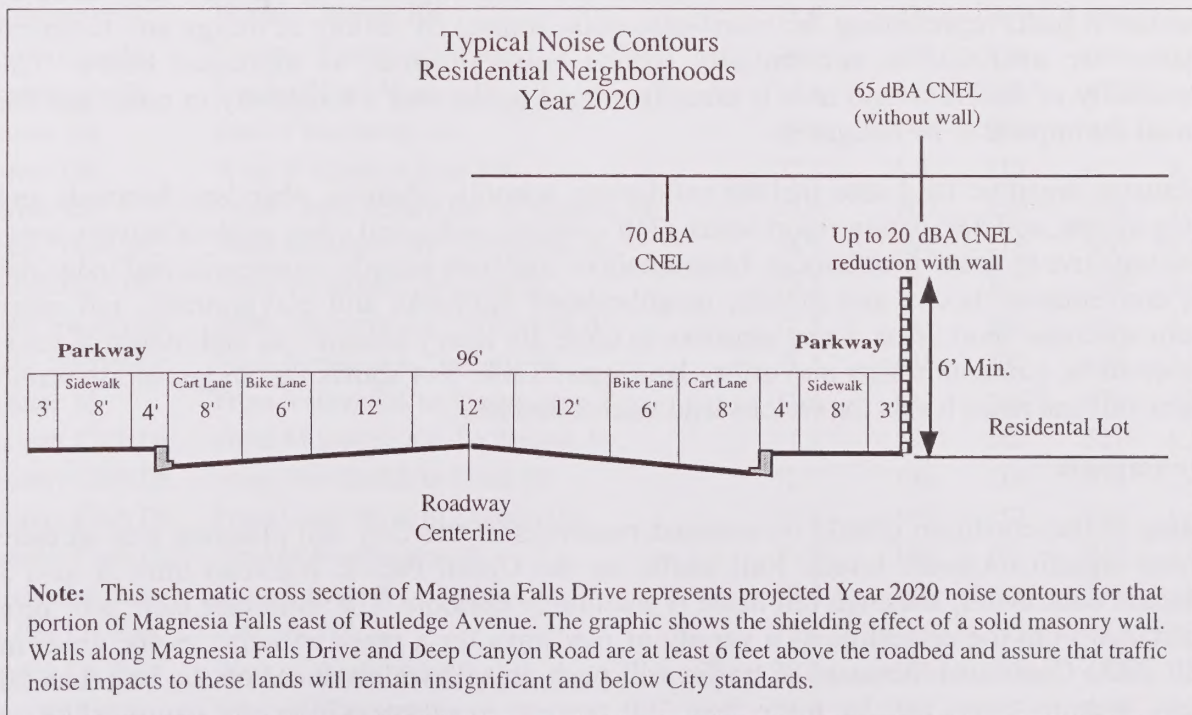
The Palm Springs Regional Airport noise contours to the south will decrease substantially with the proposed 1994 Airport Master Plan Update runway 13R-31L extension being 1,500 feet to the northwest. The runway extension to the north will move the average location of the take-off and landing operations northerly, away from Palm Desert. The peak season 65 CNEL noise contours for 2005 and 2025 are projected to remain entirely within Palm Springs.

Bermuda Dunes Airport

The Bermuda Dunes Airport is a general aviation airport located between 42nd Avenue and Interstate-10 in Bermuda Dunes. It accommodates approximately 25,500 airplane operations (take-offs and landings) per year, but has a maximum capacity of about 26,852 operations per year. During the winter season, the airport handles about 120 planes per day, but the level of activity slows to about 20 planes per day during the off-season (summer) months. The airport noise contours extend in a northwest-southeasterly direction and encompass a relatively limited area within about one-half mile of the airport. The airport's ability to expand is severely constrained due to surrounding development, and therefore, future increases in noise impacts are expected to be minimal.

Mitigating Traffic Noise Impacts

Preserving a quiet noise environment can be accomplished through thoughtful transportation planning, land use planning, project design mitigation, simple and sophisticated technology, and acoustical barriers applied to assure community noise compatibility. Site planning and design standards should provide direct noise impact mitigation for areas particularly impacted by noise. The use of buffer zones consisting of earthen berms, walls and landscaping between sensitive land uses and roadways and other noise sources is an effective tool for noise mitigation. Building orientation, particularly the placement of windows, can significantly mitigate impacts on residential land uses. A number of materials are also available which can baffle noise sources, and result in effective noise mitigation. When development proposals include sensitive receptors planned next to the impacted roadways described in Table V-3, below, proponents should be required to complete noise analyses and, as necessary, incorporate mitigation measures to ensure that the buildout of the project will not result in unacceptable noise impacts.



Mechanical and Industrial Noise

In addition to noise generated by vehicular traffic, there are other noise generators within the City and planning area, which can create significant noise-related conflicts. Activities such as construction, automotive repair, rock crushing, and other related industrial operations can create substantial noise problems. Loading and materials transfer areas, outdoor materials warehousing operations and other acoustically unscreened operations will also raise issues of impact and compatibility. Any future rail transfer operations, serving passenger or light industrial operations, can also be expected to be potentially significant irregular noise generators.

The operation of mechanical equipment is another important source of potentially significant noise. This category includes refrigerator units, chillers, and heating/air conditioner equipment associated with commercial centers. Noise from roof-mounted equipment is especially effective at penetrating into bordering neighborhoods and impacting sensitive receptors. The continual drone associated with fans and compressors can degrade the enjoyment of the outdoors and negatively affect the quality of life for nearby residents. Substantial progress has been made in noise analysis and mitigation through effective monitoring equipment and computer modeling, careful equipment design and ever-improving baffling and noise cancellation technologies.

Noise and Land Use Compatibility

Within the City of Palm Desert, the applicable limit one-hour average for outdoor noise levels in residential areas is 55 dBA from 7 a.m. to 10 p.m., and 45 dBA from 10 p.m. to 7 a.m. (Ordinance 9.24.030). The standard used for maximum outdoor noise levels in residential areas in California and the City specifically is a CNEL of 65 dBA. Characteristically, the existing and projected noise impacts that are cited above are “unmitigated” or specify unobstructed transmission paths representing the worst-case noise impact. A variety of design and technical measures are available to substantially reduce noise impacts, as discussed below. The compatibility of different land uses is directly related to the user’s sensitivity to noise and the potential for impacts to be mitigated.

Particularly sensitive land uses include residences, schools, libraries, churches, hospitals and nursing homes, and destination resort areas. Golf courses, parks, and other outdoor activity areas can be sensitive to noise disturbances. Less sensitive land uses include commercial and industrial uses, conventional hotels and motels, neighborhood ballparks and playgrounds, and other outdoor spectator sport areas. Least sensitive to noise are heavy commercial and industrial uses, transportation, communication and utility land uses. Table V-4 shows the ranges of allowable exterior ambient noise levels for various land uses at buildout.

Noise Impacts

Existing traffic condition (2003) on selected roadways in the City and planning area already generate significant noise levels. Rail traffic on the Union Pacific Railroad lines is also a substantial contributor, although rail noise is essentially episodic. The following table sets forth the distance from the centerline of a variety of roadways for a range of noise levels, given in CNEL dBA. Continued increases in traffic will push noise level distances out by less than 20 percent in some cases and by more than 200 percent in others. Given the nature of these analyses, projected noise levels are meant as a guide rather than a definitive measure of future impacts, which may require analysis on a case-by-case basis.

**Table V-3
Noise Contours for 2020**

Road	Segment	Distance to Contour (ft)				
		CNEL at 100 Feet (dBA)	70 dBA CNEL	65dBA CNEL	60 dBA CNEL	55 dBA CNEL
Monterey Av.	From Varner Rd. to I-10 Fwy.	74.7	205	442	953	2,053
Monterey Av.	North of Gerald Ford Dr.	74.2	190	409	881	1,897
Monterey Av.	From Gerald Ford Dr. to Frank Sinatra Dr.	73.1	161	346	746	1,607
Monterey Av.	From Frank Sinatra Dr. to Country Club Dr.	73.1	162	348	751	1,617
Monterey Av.	North of Magnesia Falls Dr.	73.8	180	388	836	1,800
Monterey Av.	From Fred Waring to SR-111	72.6	150	323	697	1,501
Portola Av.	From Gerald Ford Dr. to Frank Sinatra Dr.	72.9	155	334	720	1,551
Portola Av.	From Frank Sinatra Dr. to Country Club Dr.	73.5	171	369	794	1,710
Portola Av.	North of Magnesia Falls Dr.	72.1	137	296	637	1,373
Portola Av.	From Fred Waring to SR-111	71.4	124	267	574	1,237
Chase School Rd.	From Ramon Rd. to Varner Rd.	72.8	154	331	714	1,538
Cook St.	South of Gerald Ford Dr.	75.6	235	506	1,090	2,348
Cook St.	From Frank Sinatra Dr. to Country Club Dr.	74.6	202	435	938	2,021
Cook St.	North of Fred Waring Dr.	73.6	175	377	811	1,748
El Dorado Dr.	South of Country Club Dr.	68.3	77	166	357	770
Washington St.	North of Avenue 38	69.3	90	193	416	897
Washington St.	North of Varner Rd.	75.5	233	501	1,080	2,328
Washington St.	Country Club to 42nd Av.	74.6	203	438	944	2,033
Washington St.	North of Fred Waring Dr.	74.5	199	428	922	1,986
Ramon Rd.	East of Monterey Av.	69.9	99	212	458	986
Varner Rd.	West of Chase School Rd.	72.5	146	315	679	1,463
Varner Rd.	From Chase School Rd. to Avenue 38	73.2	162	350	754	1,623
Gerald Ford Dr.	From Monterey Av. To Portola Av.	74.3	194	418	900	1,939
Gerald Ford Dr.	From Portola Rd. to Cook St.	73.3	166	357	769	1,656
Frank Sinatra Dr.	From Monterey Av. To Portola Av.	72.3	143	307	662	1,426
Frank Sinatra Dr.	From Portola Av. To Cook St.	72.1	138	297	639	1,377
Avenue 38	From Varner Rd. to Washington St.	71.4	123	265	571	1,231
Country Club Dr.	From Monterey Av. To Portola Av.	71.9	134	288	621	1,338
Country Club Dr.	From Portola Rd. to Cook St.	72.5	146	314	676	1,457
Country Club Dr.	From Cook St. to El Dorado Dr.	73.2	163	352	758	1,633
Country Club Dr.	West of Washington St.	73.9	182	393	847	1,825
Hovley Ln. East	From Portola Av. To Cook St.	69.0	85	183	395	851
Hovley Ln. East	East of Cook St.	72.0	136	293	631	1,360
Hovley Ln. East	West of Washington St.	70.2	104	224	482	1,039
Fred Waring Dr.	West of Monterey Av.	71.8	131	282	608	1,310
Fred Waring Dr.	West of Portola Av.	73.8	180	388	836	1,800

City of Palm Desert/Adopted 3.15.04
Comprehensive General Plan/Noise Element

Fred Waring Dr.	East of Cook St.	75.3	226	487	1,048	2,259
Fred Waring Dr.	West of Washington St.	74.9	212	457	985	2,122
SR-111	North of Fred Waring Dr.	75.7	242	520	1,121	2,415
SR-111	West of Monterey Av.	73.8	180	389	837	1,803
SR-111	West of Portola Av.	75.1	218	470	1,014	2,184
SR-111	East of Cook St.	76.1	255	550	1,184	2,551
I-10 Fwy.	North of Bob Hope Dr.	91.2	2,607	5,617	--	--
I-10 Fwy.	From Bob Hope Dr. to Monterey Ave.	91.4	2,680	5,774	--	--
I-10 Fwy.	From Monterey Ave. to Portola Ave.	91.6	2,760	5,946	--	--
I-10 Fwy.	From Portola Ave. to Cook St.	91.7	2,805	6,044	--	--
I-10 Fwy.	From Cook St. to Washington St.	91.6	2,759	5,944	--	--
I-10 Fwy.	South of Washington St.	91.1	2,566	5,527	--	--

**Table V-4
Land Use Compatibility for Community Noise Environments**

Land Uses	CNEL (dBA)						
	50	55	60	65	70	75	80
Residential - Single Family Dwellings, Duplex, Mobile Homes	A						
		B					
					C		
						D	
Residential – Multiple Family	A						
		B					
					C		
						D	
Transient Lodging: Hotels and Motels	A						
		B					
					C		
						D	
School Classrooms, Libraries, Churches, Hospitals, Nursing Homes and Convalescent Hospitals	A						
		B					
					C		
						D	
Auditoriums, Concert Halls, Amphitheaters		B					
					C		
Sports Arenas, Outdoor Spectator Sports		B					
					C		
Playgrounds, Neighborhood Parks	A						
					C		
						D	
Golf Courses, Riding Stables, Water Recreation, Cemeteries	A						
					C		
						D	
Office Buildings, Business, Commercial and Professional	A						
				B			
						D	
Industrial, Manufacturing, Utilities, Agriculture	A						
					B		
						D	

Source: Palm Desert General Plan Update Noise Background Study”, Urban Crossroads, 2003: and California Department of Health Services, “Guidelines for the Preparation and Content of the Noise Element of the General Plan,” 1990

Explanatory Notes

 **Normally Acceptable:** With no special noise reduction requirements assuming standard construction.

 **Conditionally Acceptable:** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design

 **Normally Unacceptable:** New construction discouraged. If new construction does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

 **Clearly Unacceptable:** New construction or development should generally not be undertaken.

Palm Desert Noise Control Ordinance

In 1985, Title 9, Chapter 9.24 of the Palm Desert Municipal Code established community-wide noise standards which emphasize the value of an acceptable noise environment. It provides regulations for noise measurement and monitoring and cites special provisions of and exemptions to the ordinance. The City Noise Control Ordinance cites the value and importance given by residents, visitors and businesses to the exceptional quality of life and peace and quiet of our community. It is intended to regulate excessive noise from existing uses and associated activities, and to serve as a references guide for identifying other pertinent noise regulations.

The Palm Desert Noise Control Ordinance provides definitions of key terms and defines exterior noise level standards on a time-of-day basis along with adjustments for intensity and duration. It also provides regulations for noise measurement/monitoring and cites special provisions of and exceptions to the ordinance. Violations of the Noise Control Ordinance are defined as a nuisance and subject to the procedures, remedies and penalties set forth in the City's Violations/Infractions Ordinance. The City Noise Control Ordinance is intended to regulate excessive noise from existing uses and their activities. The noise standards in the General Plan are intended to guide the location of future noise generators and sensitive land uses.

Managing the Noise Environment

There are a variety of strategies available for managing the City's noise environment and preserving those qualities of peace and quiet that are vital and highly valued community assets. Thoughtful land use and transportation planning, project design mitigation, simple and sophisticated technical measures, and acoustical barriers should be applied to community noise compatibility issues in this order.

Site planning and design standards should be developed and/or refined to provide direct and integrated noise impact mitigation in areas subject to significant or potentially significant noise impacts. Applied mitigation measures include the use of buffer zones consisting of earthen berms, walls and landscaping between sensitive land uses and roadways and other noise sources. Site planning and building orientation can orient operable windows away from roadways and provide shielding of outdoor living spaces. Outdoor noise can be adequately reduced by incorporating effective acoustical materials into building walls and windows.

FUTURE DIRECTIONS

Existing and future noise abatement and mitigation will have varying levels of effectiveness, depending upon noise type and source, geography and land uses, and site conditions. Noise issues have been, to the greatest extent practical, carefully considered in the development of the Land Use Element and land use distributions. Another level of land use control is provided by zoning designations, which assures appropriate uses near significant noise sources, and provides guidelines and development standards that will reduce impacts and enhance compatibility. The Circulation Element has also been designed, where possible, to protect the City's residential areas from excessive traffic noise and to assure appropriate noise levels.

Generally, the City of Palm Desert enjoys a quiet noise environment consistent with its character as a resort residential community. Major roadway noise sources, however, most notably affect the City. Palm Desert and planning area residents and visitors value the peaceful and quiet atmosphere enjoyed presently, and the focus of future efforts should be to protect the community's environment from noise, the unwanted sound which could intrude as population increases, and eliminate existing noise problems whenever feasible.

GOAL, POLICIES AND PROGRAMS

Goal

A noise environment that respects community residents and reflects the community's appreciation for a sense of place, with the peace and quiet that is in balance with the City's resort residential character, sensitive receptors and natural wildlife habitats.

Policy 1

Noise sensitive uses, including residential neighborhoods, schools, congregate care facilities, libraries, churches, resorts, wildlife habitat, and community open space shall be protected from potentially significant sources of community noise.

Program 1.A

Periodically, review the General Plan Land Use Map and address potential incompatibilities that may arise between land use and project community noise levels. As appropriate, amend the Land Use Map to preclude or limit such incompatibilities.

Responsible Agency: Planning Department, Public Works Department, Planning Commission, City Council

Schedule: Ongoing.

Program 1.B

Develop and maintain an inventory of existing noise sources and areas of potential incompatibility, and establish methods, guidelines and procedures to reduce the noise levels in these areas to the greatest extent practical. Mitigation menus and strategies shall be incorporated into future updates to the City Development Code.

Responsible Agency: Planning Department; Public Works Department

Schedule: 2004-05

Program 1.C

Where noise mitigation measures are required to achieve the City's noise limit standards, the emphasis of such measures shall be placed upon site planning and project design. On a project-specific basis, the use of noise barriers shall be considered as a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project building

Responsible Agency: Planning Department

Schedule: Continuous

Program 1.D

Maintain and enforce the City's Noise Control Ordinance that establishes community-wide noise standards and identifies measures designed to resolve noise complaints.

Responsible Agency: Planning Department

Schedule: Continuous, Concurrent with substantial traffic volume increases.

Policy 2

Encourage proposed large-scale or mixed use developments with the potential to generate substantial noise to be planned and designed to minimize noise impacts on nearby noise-sensitive land uses.

Program 2.A

Use Specific Plans and other master planning processes, and the development review process to assure the appropriate use of buffers, building setbacks and orientation, walls and other acoustical barriers between noise sources and sensitive land uses. Walls and other acoustical barriers shall be designed to be as visually pleasing as possible, incorporating landscaping, variations in color and patterns, and/or changes in texture or building materials.

Responsible Agency: Planning Department; Planning Commission, City Council

Schedule: Project-specific; Ongoing.

Program 2.B

Noise created by new transportation improvements, including new or expanded roadways and railroad improvement projects located near sensitive land uses, shall be mitigated to the greatest extent practicable to assure that the noise environment on adjoining lands is compatible with the City's Noise Control Ordinance for outdoor living/activity areas and for interior spaces.

Responsible Agency: Planning Department, Planning Commission, City Council

Schedule: Immediate; Continuous.

Program 2.C

The City shall encourage developers in potentially noisy areas to explore and utilize innovative site planning, building and materials technology to mitigate environmental noise and enhance living and work environments.

Responsible Agency: Planning Department, Public Works Department, Building and Safety Department

Schedule: Project-specific; Ongoing.

Policy 3

The potential for long-term and project-specific land use patterns, traffic distribution, and individual development to generate adverse and incompatible noise impacts shall be assessed, and significant impacts shall be appropriately mitigated.

Program 3.A

The General Plan, Zoning Ordinance and development review standards shall be used to assure adaptively managed land use patterns, directed and controlled traffic patterns, and project designs that assure compatibility with the area noise environment.

Responsible Agency: Planning Department

Schedule: Continuous

Program 3.B

The City shall restrict grading and construction activities that may impact residential neighborhoods and other sensitive land uses to specified days of the week and times of day.

Responsible Agency: Planning Department

Schedule: Continuous

Program 3.C

Periodically review and amend the Land Use and Zoning Maps, as appropriate, to assure reasonable land use/noise level compatibility.

Responsible Agency: Planning Department

Schedule: Continuous.

Policy 4

Project designs shall include measures that assure that residential interior noise exposures do not exceed 45 dB CNEL levels and otherwise comply with State of California noise insulation standards as defined in Title 25 (California Noise Insulation Standards).

Program 4.A

Proposed residential and other noise-sensitive developments may be required to conduct initial and on-going monitoring of exterior and interior noise environments to assure compliance with applicable City and state regulations and standards.

Responsible Agency: Planning Department, Public Works Department

Schedule: Project-specific, Continuous.

Policy 5

Promote increased public awareness of the significant consequences of noise and sound pollution.

Program 5.A

Provide public opportunities to discuss integrating environmental considerations into the economic decision-making process through information and education programs, emphasizing the goal of preserving balance between economic development, tourism, and respect for and appropriateness of quiet places in the community.

Responsible Agency: Community Development, Public Works Department

Schedule: 2003-04; Continuous

Policy 6

The City shall develop and maintain a roadway network that is consistent with the resort residential character of the City, avoids impacts to sensitive receptors, and provides fixed routes for truck traffic.

Program 6.A

The City-wide circulation network shall provide an efficient hierarchy of roads that make efficient use of local and collector streets to direct primary traffic loads onto major arterial roadways. Through-traffic in residential neighborhoods shall be discouraged.

Responsible Agency: Planning Department, Public Works Department

Schedule: Annual Review; Amend General Plan, as appropriate

Program 6.B

The City shall designate specific truck routes, which avoid or minimize truck traffic in residential and other sensitive areas. Truck routes shall be established that make efficient use of highways and major and arterial roadways. Truck routes shall be posted with signage prohibiting non-local trucks, as appropriate.

Responsible Agency: Planning Department, Public Works Department

Schedule: Public Works Department

Policy 7

The City shall impose and integrate special design features into proposed development that minimize impacts associated with the operation of HVAC equipment, on-site traffic, and use of parking, loading and trash storage facilities.

Program 7.A

Building design and associated HVAC equipment, parking lots, loading zones, and large trash bins shall be located at a sufficient distance from adjacent residential properties or sensitive land uses to reduce associated noise impacts to insignificant levels. Design mitigation may include acoustical screens around HVAC equipment, and acoustically screened loading and trash management areas.

Responsible Agency: Planning Department, Public Works Department

Schedule: Continuous.

Policy 8

Coordinate with adjoining municipalities to assure noise-compatible land uses across jurisdictional boundaries.

HAZARDOUS & TOXIC MATERIALS ELEMENT

PURPOSE

The intention of the Hazardous and Toxic Materials Element is to present methods of safe management of hazardous and toxic materials in the community. This Element emphasizes the City's concern for the protection of its residents and visitors from harmful health and other impacts associated with these materials that may pose a threat to life and property, and may dictate costly public improvements. Reduction or elimination of these hazards can be accomplished as the City continues to establish policies and programs that identify hazard areas and reviews and regulates development where such hazards occur, assuring effective and safe use, storage, and transport of hazardous and toxic substances in the City of Palm Desert.

BACKGROUND

Innovative new technologies and chemical processes, often developing at swift pace, can also result in the introduction of new and potentially hazardous materials. Accidental spills, illegal dumping, and other uncontrolled discharges of these materials can pose a significant threat to the community and its environment.

Directly related to the Hazardous Materials Element are Air Quality and Water Resources Elements, whose efforts are to preserve clean air and protect against water resource contamination. Also related to this Element is the Land Use Element, with the potential of hazardous material use, storage, or disposal to undermine land use compatibility. The Biological Resources Element may be negatively impacted by improper management of these materials. The Public Safety Element and the Emergency Preparedness Element also play an important role in establishing policies and programs to protect the general public from adverse impacts associated with toxic and hazardous materials.

It is mandated by California Government Code Section 65302(g) that the General Plan of a community address safety issues, including but not limited to hazardous materials. Responsibility for regulating and monitoring the management, disposal, labeling, and use of toxic and hazardous materials lies with a variety of federal, state, and local agencies, including the U.S. Environmental Protection Agency, the California Office of Health Planning and Development, and the Riverside County Department of Health. AB 2948 (Chapter 1504, Statutes of 1986), commonly known as the Tanner Bill, authorizes counties to prepare Hazardous Waste Management Plans (HWMP) in response to the need for safe management of hazardous materials and waste products.

The California Regional Water Quality Control Board (CRWQCB), as well as the Coachella Valley Water District, maintains information concerning contaminated water wells and groundwater. The state and federal Environmental Protection Agencies (EPA) and the State Department of Health also provide information concerning specific hazardous waste sites.

There are no large industrial or commercial users of hazardous materials in the City of Palm Desert. Only a few identified hazardous/toxic material generators are associated with commercial, and quasi-industrial and medical operations, which have the potential to be associated with accidental spills, purposeful illegal dumping, air emission, and other uncontrolled discharges into the environment. Improper use and management of these materials by service stations, petroleum product and equipment suppliers, pesticide vendors and users, automotive dealers, medical practitioners, hospitals and clinics pose a significant potential threat to the community and its environment.

Chemical and purified chemical compounds, products, and elements that are considered hazardous or toxic exist in wide variety and are used in households, commercial businesses and industrial operations and processes. They range through home and pool related chlorine products, chemical fertilizers, herbicides and pesticides, stored fuels and waste oil, chemical solvents and lubricants, and a variety of medical materials. All are considered “small quantity generators”.

There are several potentially hazardous waste sites that are generally restricted to the above-mentioned and regulated “small quantity generators”. In addition to these mentioned above, there are other sites that have been or should be monitored. These include other waste-generating medical clinics and facilities, gasoline service stations, equipment and fuel storage yards, and waste haulers. The Eisenhower Medical Center, Desert Orthopedics Center, the Heart (Cancer) Institute.

Known or identified underground fuel storage occurring at locations in the City, where leakage would pose the most significant hazard, include service stations, Waste Management of the Desert, and Sun Bus. The U.S. EPA requires all service stations to retrofit or replace underground storage tanks with double-walled construction. Several sites in the City have already complied with this rule. In the City Sphere-of Influence various industrial activities, including machining, wind turbine servicing, and materials research, also have the potential for uncontrolled discharge of hazardous materials.

Hazardous Waste and Sewage Disposal

An area of recent concern in the Coachella Valley and the Palm Desert area has been the impact of long-term septic tank use on groundwater resources. In the City of Palm Desert, most of the city is currently connected to the sewer system, although there remains some septic tank use due to location or circumstances. Upon the sale or transfer of property still using septic tanks, the City requires sewer connection within 200 feet of a sewer main.

Some areas of the western Coachella Valley have evidenced high nitrate waters from the early days of settlement, even before soil grading activities began. While these nitrate levels are not a problem, they continue to come from a number of sources, including plowed vegetation,

sanitation effluent, remaining septic tanks, and golf course fertilizers. The Coachella Valley Water District continues to encourage the use of recycled water for golf course irrigation in order to reduce groundwater nitrate levels. Monitor wells in the Cove area indicate that elevated levels of nitrate, but do not currently exceed state and federal regulations (also see the Water Resources Element). There are currently (2001) no concerns about the quality of the domestic water supply.

Hazardous Waste Management Plans

The City of Palm Desert has the opportunity to coordinate with appropriate county, state and federal agencies in the identification of hazardous material sites, and the active regulation of their timely cleanup. Management strategies may include establishing and maintaining information on these sites, periodic monitoring facilities and operations that produce, utilize or store hazardous materials in the city. Involvement in multi-agency monitoring of illegal dumping in the City, conferring in the regulation of underground storage tanks and septic systems, and regulating the transport of hazardous materials through the community is also appropriate.

AB 2948 (Chapter 1504, Statutes of 1986), commonly known as the Tanner Bill, authorizes counties to prepare Hazardous Waste Management Plans (HWMP) in response to the need for safe management of hazardous materials and waste products. The Riverside County HWMP was adopted by the Board of Supervisors and approved by the California Department of Health Services in 1990. The County HWMP identifies the types and amounts of wastes generated in the County and established programs for managing these wastes.

To comply with Health and Safety Code Section 25135, the Riverside County HWMP assures that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within the jurisdiction, and addresses issues related to manufacture and use. This plan was developed jointly by the County, Palm Desert and other cities within the County, the State, the public and industry to address the disposal, handling, processing, storage and treatment of local hazardous materials and waste products.

Preparation of the HWMP includes extensive public participation. Its policies require the coordination of County efforts with state and federal agencies in the identification and establishment of programs for managing these wastes. As an integral part of the County HWMP, the City of Palm Desert hazardous waste management policies for the General Plan are basically extensions of the County Plan and are hereby incorporated by reference. Currently (2001), there are several sources of information concerning hazardous waste sites in the City of Palm Desert area.

The California Regional Water Quality Control Board (CRWQCB) and the Coachella Valley Water District, maintain information concerning contaminated wells and groundwater. The state and federal Environmental Protection Agencies (EPA) and the State Department of Health also supply information concerning specific hazardous waste sites and their locations. The California Department of Industrial Relations, Cal-OSHA Division, regulates the proper use of hazardous materials in industrial settings. Private database screening and documentation services are also available, which will search, extract, and summarize reports on contaminated sites recorded in various state and federal databases.

Hazardous Materials Response

Hazardous and toxic materials are determined critical by the County Department of Health, and the County and the City can require property owners to test, temporarily close and/or remove all hazardous liquids, solids or sludge located on the site. Leaking underground storage tanks must be removed by contractors having Hazardous Waste Certification and a General Engineering license. Between cessation of storage and actual closure, monitoring is generally required by the site's operating permit.

When soil contamination is detected, the clean up procedure to be followed, the degree or level of cleanliness required by the regulator, and the method of treatment (if permitted) will be directed by the County Health Hazardous Materials Division and/or the Regional Water Quality Control Board. The City of Palm Desert has the opportunity to coordinate with appropriate county, state, and federal agencies in the identification of hazardous material sites, and the active regulation of their timely cleanup.

The Cove Communities Commission, comprised of various city officials from the cities of Palm Desert, Rancho Mirage and Indian Wells, is the decision-making entity for emergency and related services issues with the contracted Riverside County Sheriff and Fire Departments. Palm Desert's three fire stations, #33 at Town Center Drive and Highway 111, #71 at Portola and Country Club Drive, and # 67 at Mesa View and Portola Drive share the capacity of authority as a First Response Team. The agency responsible for the Hazardous Response Plan addressing hazardous and toxic materials is the County of Riverside Health Hazardous Materials Division and/or the Regional Water Quality Control Board.

FUTURE DIRECTIONS

Responsibility to coordinate with the appropriate agencies in the identification of hazardous material sites lies with the City of Palm Desert, as does the active regulation of their timely cleanup. The Hazardous and Toxic Materials Element can most efficiently be implemented through regular consultation with the RWQCB and the County Health Department and by updating information on hazardous material sites, monitoring facilities that utilize or produce hazardous materials within the City. The City should also remain current regarding the monitoring and regulating of underground storage tanks and septic systems, and regulating the transport of hazardous materials through the community.

Oversight and management between responsible agencies through a carefully coordinated program will be essential. Regular consultation and coordination between the City Emergency Preparedness Director and responsible county and state agencies is also appropriate. Processes for determining appropriate levels of local, County and State personnel and facilities will also be critical. The goals, policies and programs of this element help to guide the planning and development of appropriate strategies to address hazardous and toxic materials in the community.

GOAL, POLICIES AND PROGRAMS

Goal

Maintain and promote measures to protect life and property in the City of Palm Desert from hazards resulting from human activities and development.

Policy 1

The City shall continue to encourage existing research and studies on potential and known hazards to public health and safety and make this information available to the general public, commercial interests, and governmental organizations.

Policy 2

The City shall continue to conduct and participate in studies with other agencies to identify existing and potential hazards to public health and safety.

Policy 3

Maintain, coordinate, and update hazardous spills as a result of accident or intentional action, and community evacuation plans.

Program 3.A

The Fire Department shall maintain a citywide Emergency Response Program, which provides for emergency services in the event of a hazardous spill or airborne release.

Responsible Agencies: Fire Department, Planning Department, Community Services, County Health Department

Schedule: Continuous

Policy 4

Continue to maintain the critical centralized infrastructure and plan for enhancements to both the emergency and general City communications systems.

Policy 5

The City shall thoroughly evaluate development proposals for lands directly adjacent to sites known to be contaminated with hazardous or toxic materials, as well as sites, which use potentially hazardous or toxic materials. The City may require soils testing of the proposed development site and the implementation of mitigation measures, which reduce the adverse affects of any contaminants to insignificant levels.

Program 5.A

Periodically consult with the County of Riverside Department of Health to identify existing and new hazardous waste sites within the General Plan study area, which may include conducting on-site testing and other assessments.

Responsible Agencies: Planning Department, Fire Department, County Health Department

Schedule: Continuous

Program 5.B

A Conditional Use Permit shall be required for all new development that generates, transports, or stores significant hazardous materials.

Responsible Agencies: Planning Department

Schedule: Continuous

Policy 6

Encourage and facilitate the adequate and timely cleanup of existing and future contaminated sites within the City of Palm Desert and its sphere-of-influence.

Program 6.A

Coordinate with responsible county, state and federal agencies to activate cleanup procedures, and monitor the status of cleanup efforts on an ongoing basis.

Responsible Agencies: Planning Department, Fire Department, State; State and federal EPA, County Health Department, CRWQCB

Schedule: Continuous

Policy 7

The City shall designate appropriate access routes to facilitate the transport of hazardous and toxic materials.

Program 7.A

Coordinate with the Fire Department, Police Department, neighboring jurisdictions, and other appropriate agencies to identify segments of highway or local roads that shall be restricted from transporting hazardous and toxic materials in order to preserve public safety.

Responsible Agencies: Planning Department, Fire Department, Police Department

Schedule: Continuous

Program 7.B

Enforce roadway access restrictions and consider the implementation of fines or penalties for violations.

Responsible Agencies: Public Works Department, Planning Department, Building and Safety; Fire Department, Police Department

Schedule: Continuous

Policy 8

Develop and maintain an inventory and information database of all hazardous waste sites within the City limits and General Plan study area, and regulate the transport, use, storage, and disposal of hazardous materials to the extent empowered.

Policy 9

Develop and maintain a list of the location of all underground fuel storage tanks with the potential to release hazardous materials into the environment, and monitor their use on an ongoing basis.

Program 9.A

Coordinate with responsible agencies to assure enforcement of state and federal regulations for the testing and monitoring of underground fuel storage tanks for leakage.

Responsible Agencies: Public Works Department, Planning Department, Fire Department, State and federal EPA, County Health Department

Schedule: Continuous

Policy 10

Continue to promote programs that encourage or educate the public in the proper handling and disposal of household hazardous waste or dangerous materials.

Program 10.A

Provide persons and small businesses within the planning area with environmental information or audits to help them conserve resources, energy, reduce toxics and waste in accordance with county, state, and federal regulations, and provide general education on how to run an environmentally friendly business or household.

Responsible Agencies: Community Services, Building and Safety, Planning Department, Fire Department

Schedule: Immediate; Continuous

Program 10.B

Develop an educational program and information materials, such as a community newsletter or hotline assistance, regarding proper management and disposal of hazardous and toxic wastes; distribute it to residents and small businesses, and post it on the City web site.

Responsible Agencies: Community Services, Building and Safety, Planning Department, Fire Department

Schedule: Immediate; Continuous

Policy 11

The City shall actively oppose plans to establish hazardous or toxic waste dumps, landfills, or industrial processes that may potentially adversely affect the City and its Sphere-of-Influence.

CITY OF PALM DESERT

COMPREHENSIVE GENERAL PLAN

CHAPTER VI

PUBLIC SERVICES AND FACILITIES

This chapter of the General Plan addresses the public services and facilities needed to support development in the City of Palm Desert. General Plan elements found in this chapter that discuss these services and facilities include Water, Sewer and Utilities, Fire and Police Protection, Schools and Libraries, Health Services, Emergency Preparedness, and Public Building and Facilities. The levels of service needed for residential, commercial and industrial development is directly related to the intensity of development in the community. The economic life of the City is tied to the level of services, the types and intensities of land use, and the levels of demand for services and the revenue generating potential of urbanizing areas.

WATER, SEWER AND UTILITIES ELEMENT

PURPOSE

The purpose of this Element is to assure that the City plays the greatest role possible in facilitating the provision of essential, reliable utility services to the community's residents, businesses and institutions. This Element sets forth goals, policies and programs pertaining to the provision of adequate water, sewer and other utility infrastructure and services. Issues addressed in this Element include potable and irrigation water, sanitary sewage collection and treatment, natural gas, electricity, telephone, cable and solid waste management and disposal services.

These utility facilities and services are essential to the orderly growth, development and management of the community. The Element also identifies standards for infrastructure relative to population and land use intensity, and provides programs and courses of action necessary to implement the goals and policies established herein.

BACKGROUND

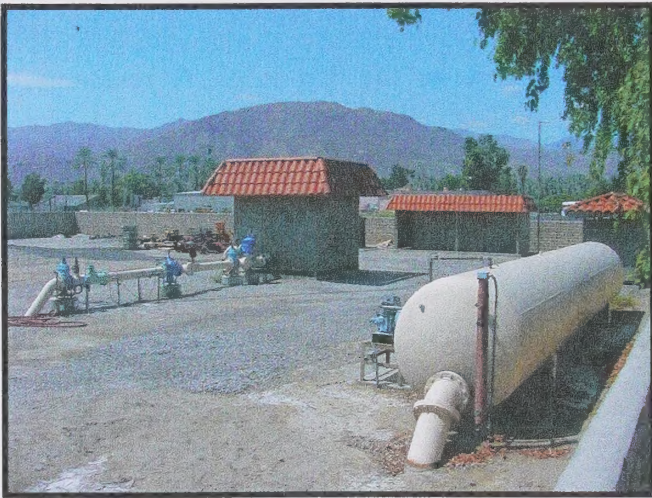
All urban land uses are dependent upon, and must be planned and constructed in conjunction with, the development and extension of utility infrastructure. In this regard, the Water, Sewer and Utilities Element is most directly related to the Land Use Element. It is also closely related to the Water Resources and Energy and Mineral Resources in that it addresses the harnessing and utilization of natural resources. The availability of utility services is also closely related to the Economic Development Element and other elements of the General Plan.

California Government Code Section 65302(d) directs the General Plan to address the conservation, development and utilization of natural resources, including water. Related to this are the management of wastewater (sewage) and the utilization of other natural resources, including those associated with the generation of electricity and the production of natural gas. This Element satisfies, in part, the requirement for a Conservation Element while also addressing other utilities as set forth in Section 65303.

California Government Code Section 65103(c) requires that the planning agency "annually review the capital improvement program of the city and the local public works projects of other local agencies for their consistency with the General Plan." This Element provides an effective and meaningful framework from which to comply with state law.

DOMESTIC WATER

The Whitewater River Subbasin, which encompasses approximately 400 square miles and underlies much of the Coachella Valley, serves as the groundwater repository for the Palm Desert area. The City is located within the boundaries of the upper Thermal subarea. The entire Thermal subarea (including the upper and lower Thermal subareas) contains an estimated 19.4 million acre-feet of groundwater in storage in the first 1,000 feet below the surface. The Thousand Palms community overlies the Thousand Palms subarea, which contains approximately 1.8 million acre-feet of groundwater in storage in the first 1,000 feet below the ground surface.



Coachella Valley Water District

The Coachella Valley Water District (CVWD) provides domestic water services to much of the Coachella Valley, including the City of Palm Desert, Thousand Palms, and Del Webb's Sun City. CVWD utilizes deep wells to extract groundwater from the Whitewater River Subbasin. CVWD's domestic water system, which serves the City, includes 50 wells with an average depth of 900 feet. CVWD also has a total of 27 reservoirs serving the General Plan study area, with an average capacity of 1.8 million

gallons. Some of these reservoirs may also serve pressure zones which extend beyond the study area. The largest (i.e., main or trunk) water lines are generally located along section lines, with smaller lines branching into individual sections.

The Sky Valley community, in the northern portion of the General Plan planning area, is underlain by the Desert Hot Springs Subbasin. Hydrological analysis of the subbasin indicates that it has approximately 4.1 million acre-feet of groundwater in storage in the first 1,000 feet below the ground surface. As described in CVWD's "Engineer's Report on Water Supply and Replenishment Assessment, 2000-2001," water in this subbasin is characterized by high concentrations of undesirable minerals, which has limited its use for domestic and agricultural purposes. Water delivery infrastructure in this area includes main lines which deliver water from CVWD wells located in the Mission Creek Subbasin west of Palm Drive

Myoma Dunes Mutual Water Company

The Myoma Dunes Mutual Water Company provides domestic water services to the Bermuda Dunes community, except for development along Washington Street, which is served by CVWD. Its five active wells, drilled to depths of 750 to 800 feet, can produce 1,700 to 3,200 gallons of potable water per minute. Three of the production wells discharge water directly into the water distribution system, which conveys water through distribution water mains ranging in size from 4 to 12 inches in diameter. The two other wells deliver water directly into a water reservoir near the intersection of 41st Avenue and Hermitage Drive. The reservoir has a capacity of one million

gallons. Myoma Dunes operates a sixth well, which is used solely by the Bermuda Dunes Airport and is not connected to the water delivery system.

Groundwater Demand and Conservation

Major natural sources of groundwater recharge include infiltration of runoff from the San Bernardino, San Jacinto and Santa Rosa Mountains, as well as inflow from other subbasins to the west. However, continued increases in demand generated by development in the Coachella Valley have had significant cumulative impacts on the region's groundwater supply.

In 1999, total water demand in the Valley was estimated at 668,900 acre-feet per year. The historical depletion of groundwater in the Coachella Valley has resulted in a condition known as overdraft, in which the demand for groundwater exceeds the amount of recharge into the groundwater basin over a period of time. In 1999, approximately 136,700 acre-feet of groundwater were withdrawn from the Coachella Valley's groundwater supplies and were not replaced.

CVWD has been involved in a variety of efforts to conserve and augment finite groundwater supplies and to assure the continued availability of domestic water to the Coachella Valley. These include facilitating an artificial groundwater recharge program utilizing imported Colorado River water, using tertiary (three-stage) treated wastewater for golf course and landscaping irrigation, and using recycled fish farm effluent for agricultural and other purposes in the lower Coachella Valley.

City Water Conservation Efforts

The City of Palm Desert has also been actively involved in promoting water conservation and has adopted a water-efficient landscape ordinance for all new and rehabilitated public and private landscape projects. Opportunities for increased water conservation in urban uses remain substantial, with changes in landscaping design offering some of the greatest potential. The City continues to take a proactive role in achieving a balance between water consumption and groundwater recharge. City activity may involve increased promoting and facilitating the market penetration of water-conserving strategies and technologies. Please refer to the Water Resources Element for additional information regarding groundwater resources, demand and conservation.

WASTEWATER TREATMENT

The Coachella Valley Water District provides wastewater collection and treatment services to the City of Palm Desert, and much of the planning area. Wastewater is conveyed through sewer trunk lines generally ranging in size from 4 to 24 inches, relying primarily on gravity flow. Effluent from the City is conveyed to CVWD's Cook Street treatment plant (Water Reclamation Plant No. 10), which has a current (2003) capacity of 18 million gallons per day.



Effluent from Bermuda Dunes, Del Webb's Sun City and other development north of Miles Avenue is conveyed to the treatment plant located at Madison Street and Avenue 38 (Water Reclamation Plant No. 7). This plant treats approximately 2.4 million gallons of wastewater per day, and has a capacity of 5 million gallons per day. CVWD continually increases the capacity of its plants by constructing new treatment ponds, aeration plants and other structures.

Tertiary Treated Water

In an effort to reduce the impacts of development on groundwater supplies, CVWD has implemented the use of tertiary (third stage) treated wastewater for use in golf course, landscape and other irrigation. Wastewater is typically treated to secondary levels and reintroduced into the groundwater table through percolation ponds, with passage through sands and soils providing a final stage of filtration. Tertiary treated water undergoes an additional stage of treatment, making it immediately suitable for irrigation purposes and decreasing, to some extent, the demand for groundwater resources.

The Cook Street wastewater treatment plant has a tertiary water capacity of 15 million gallons per day (mgd). The Cook Street plant generates from 1.2 to 7.8 mgd of tertiary treated water, with the average being approximately 4.4 mgd. The treatment plant at Madison Street and Avenue 38 generates from 0.8 to 2.5 mgd of tertiary treated water, and has a maximum current (2001) capacity of 2.5. This plant is planned for expansion to treat 5 mgd within the next few years.

Septic Tank Usage in the Planning Area

While much of the General Plan planning area is connected to CVWD's sewer system, several areas still rely on septic systems for wastewater disposal. These areas include Sky Valley and scattered residential development in the Thousand Palms area. Wastewater contains contaminants from on-lot septic tanks, such as nitrogen, bacteria and organic chemicals that have the potential to degrade the quality of groundwater and render it unsuitable for human consumption. The long-term use of septic tanks has been associated with contamination of groundwater supplies in limited areas of the Coachella Valley.

The potential adverse effects of long-term reliance on on-lot septic tanks is illustrated in a 1993 report published by the Desert Water Agency which identified a virus infecting E coli bacteria found in limited quantities in groundwater supplies in the southern portion of Cathedral City. It was later determined that the biological contamination was related to the heavy use of septic systems in the area. Also of concern are potentially high levels of nitrate (NO_3), which can reach the water table even after other contaminants have been broken down or effectively treated by passage through the soils column. The City and CVWD must continually monitor and address threats of contamination.

City Sewer Connection Requirements

The City adopted Chapter 8.60 of the Municipal Code in 1994 “to help assure continued protection and high quality of water resources available in the City....” This ordinance requires that all properties, buildings and structures to abandon existing septic tanks, seepage pits and/or cesspools and to connect to the available public sewer system prior to the sale or transfer of ownership. The sewer connection ordinance also establishes a certificate of compliance process to document abandoning of the on-lot system and connection to the community sewer system.



ELECTRIC SERVICE

The generation and delivery of electric power has become quite complicated with the implementation of deregulation in California and the loss of control and coordination of generating capacity, demand and the transmission network (grid). In 1998, Assembly Bill 1890 (AB 1890) deregulated the electricity industry, allowing Californian residents to choose their electricity provider. Consumers could decide the provider and source of power, including electricity generated from renewable energy resources.

In addition to opening up the energy market, deregulation also created a new statewide renewable energy program. Deregulation also resulted in the sale of power generating facilities by the state’s major utilities, the purpose being to increase competition among generators and lower the cost of electric power. Greater than expected demand, lower seasonal rainfall and less available hydroelectric power, increased cost of natural gas for power generation, and the uncoordinated shutdown of power plants for maintenance have resulted in expensive and unreliable sources of electricity.

Southern California Edison

Southern California Edison (SCE) provides electricity to much of the Palm Desert General Plan planning area. Its service area includes most of the City of Palm Desert, excluding a portion of the California State University/San Bernardino (CSSB) Coachella Valley Campus site, Avondale Country Club and other limited area south of US Interstate-10 (also see Imperial Irrigation District discussion below), and lands west of Ford Avenue in Sky Valley. SCE’s electric power is primarily generated outside the Coachella Valley, however, it does purchase wind-generated power from local producers.



SCE's facilities include high-voltage transmission lines, which range up to 115 kilovolts (kv) in the City of Palm Desert and up to 500 kv in the northern portion of the Planning area. Lower-voltage distribution lines, which are typically gauged at about 12 kv in the planning area, provide electricity to individual residences and other users. Three substations are located within the City of Palm Desert and are used to step down voltage for local distribution.

The substations include: 1) Silver Spur Substation, located south of Haystack Road and west of Portola Avenue; 2) Palm Village Substation, located south of Highway 111 and east of Deep Canyon Road; and 3) Concho Substation, located south of Country Club Drive and east of Cook Street, near the Indian Ridge Country Club. In addition, some circuits from the Santa Rosa Substation, located west of Monterey Avenue and north of Clancy Lane in Rancho Mirage, feed into the City of Palm Desert.

SCE offers residential users a variety of rebates for the installation of energy efficient equipment. Several rebates offered by SCE include refunds for the replacement of "through-the-wall" heat pumps; the installation or replacement of central electric heat pumps; and the replacement of heat pump water heaters to name a few. SCE's Automatic Power Shift program allows substantial savings from June through September, in exchange for allowing SCE to remotely cycle-off selected air conditioning units during peak periods of heavy use and potential power outages.



Imperial Irrigation District

Imperial Irrigation District (IID) is a non-profit, community-owned utility district that serves customers in Imperial County and parts of Riverside and San Diego counties. IID provides electric service to a limited portion of the Palm Desert General Plan planning area, including the Avondale Country Club, most of the CSSB Coachella Valley Campus, Webb/Sun City, Thousand Palms, Bermuda Dunes and the eastern portion of Sky Valley.

IID facilities in the planning area include 230 kilovolt (kv), 161 kv, and 92 kv transmission lines, as well as 34.5 kv and 12 kv distribution lines. Higher voltage transmission lines are typically overhead, while lower voltage distribution lines may be overhead or placed underground. IID operates several substations within the planning area, including the following: 1) North View Substation, near the intersection of Avenue 38 and Adams Street, in the vicinity of Sun City Palm Desert, 2) Edom Substation, just north of Interstate-10 near Monterey Avenue in Thousand Palms, and 3) Sky Valley Substation, on Avenue 22 near Hot Springs Road in Sky Valley.

IID obtains its power from a combination of hydroelectric, thermal, diesel, and geothermal generation sources. Since 1936, IID has constructed a number of power generating plants, including the El Centro Generating Station, a diesel generating plant near Brawley, a series of hydroelectric plants along the All-American Canal near the US/Mexico border, the Pilot Knob Plant on a bypass channel between the All-American Canal and the Colorado River, and the East Highline hydroelectric plant. In 1993, IID purchased a 74-megawatt steam unit and a 22-megawatt gas turbine at the Yucca Power Plant in Yuma, Arizona.

IID also purchases power from outside sources, including the Western Area Power Administration and the El Paso Electric Company, with whom IID has an energy supply contract for 150 megawatts until the year 2002. IID has joined the Southern California Public Power Authority in purchasing ownership interests of 14.6 megawatts in the Palo Verde Nuclear Generating Plant in Arizona, and a unit at the San Juan Generating Station. IID has also purchased an interest in the Palo Verde/San Diego 500-kilovolt transmission line, which provides IID with access to cheaper imported energy.

The Coachella Valley Substation functions as a key link between IID and Southern California Edison, and has allowed IID to strengthen its access to the rest of the power grid. In the event that the power flow from the Imperial Valley is disrupted, IID could use this route to service its customers in the Coachella Valley.

IID offers a number of energy conservation and incentive programs. In April 2001, IID launched its Refrigerator Rebate/Recycling Program to help customers reduce their energy costs. The program promotes the installation of energy-saving refrigerators by offering rebates to customers who turn in their old refrigerators for recycling, and provides new energy-efficient refrigerators to low-income customers. A similar rebate program for energy-efficient air conditioners and heat pumps was initiated in August 2000. The Weatherization Assistance Program began in October 2000, and is directed at helping low-income customers make energy efficiency improvements to their homes. IID also offers low-income electric rates and sponsors numerous educational and community services relating to energy conservation.

Deregulation

The deregulated electric power industry mandated rate reductions from some electric companies and allowed customers served by large, investor-owned utilities to choose alternative electricity providers. Smaller, community-owned utilities (like IID) were not required to offer their customers alternatives at that time. The primary goal of deregulation was to enhance competition in the electric industry and bring choices to consumers and lower thereby electric rates.

The legislation set caps on rates charged by investor-owned utilities at 1996 price levels. By winter 2000, a significant price gap emerged between wholesale electricity prices and maximum retail prices that utilities were permitted to charge. Wholesale prices typically exceeded the maximum permitted retail prices, making it cheaper not to provide electricity to consumers. As a result, many California communities experienced rolling blackouts to save on the state's power grid. Coachella Valley customers that had signed up for voluntary service interruptions, in exchange for price discounts, also experienced occasional power outages.

A true electric power supply shortage exists in California, and the state-wide demand for electricity appears to be outstripping the combination of state and interstate electricity supplies. Interstate suppliers that sell electricity to California utilities are occasionally experiencing low winter temperatures and precipitation. As a result, hydroelectric and other power resources are not as readily available as they once were.

There have also been regulatory barriers to the construction of new power plants in California, which in 2001 are being substantially lowered. Significant federal and state participation in the environmental review process has heretofore made permitting difficult in some cases, particularly in meeting applicable air and water quality standards. It is unclear whether and to what extent the rush to construct new power plants and transmission facilities will be conducted in an environmentally sound manner.

Opportunities for Conservation

With the potential for increases in demand for electric power to outstrip supply and with the rising costs of power, the City has determined it appropriate to take a more proactive role in addressing the potential for conservation and local generation of electric power and associated energy needs through an aggressive program. Some of the activities the City shall consider include expanded public information campaigns, promotion of use-based rate structures, promotion of alternative generation and conservation technologies, and the development of mechanisms to facilitate the purchase and installation of these technologies.

NATURAL GAS

The Southern California Gas (SCG) Company provides natural gas services and facilities to the City of Palm Desert and the entire General Plan planning area. Locally used natural gas originates in Texas and is transported to the Coachella Valley via three east-west trending high pressure gas transmission lines, which cross the valley just north of Interstate-10 and continue west to Los Angeles. The lines include one 30-inch line and two 24-inch lines, with pressures of 2,000 pounds per square inch (psi).

Within the planning area, high pressure gas lines are located beneath Washington Street, Highway 111, Sierra del Sol (serving Thousand Palms), and Dillon Road (serving Sky Valley). These are typically steel lines with pressures of 300 psi. The Washington Street and Sierra del Sol lines tap directly into the major transmission lines north of I-10.

Medium pressure distribution lines are located within the rights-of-way of Country Club Drive, Fred Waring Drive, Monterey Avenue, Cook Street, and Highway 74. These lines range from 38 to 42 psi, and are typically constructed of 4-inch plastic, although older lines may be made of steel.

Although most of the City of Palm Desert is connected to the natural gas system, lands west of the Palm Valley Stormwater Channel, parallel to Highway 74, are not served. Residents in this area use propane gas as an alternative fuel source.

SCG provides detailed technical assistance and incentive program of all energy service providers serving the City. Service planners and technical expertise from SCG's various service divisions are available to assist in addressing a wide range of use issues, including land use master planning, service extension and use-specific technical consulting/problem solving.

SCG also provides core nonresidential customers equipment rebates up to 20% of the cost of qualifying equipment. Assistance in facilities planning and analysis is also provided to maximize energy efficiency and cost-effective equipment purchases and operations. SCG's Air Quality Assistance Program provides detailed information on current and anticipated air quality requirements and helps users through the regulatory compliance maze, including the permitting process. SCG also helps in the development of new technologies and process solutions primarily for industry.

Opportunities for Conservation

Natural gas is used primarily for domestic hot water, space heating, pool heating, and industrial process heat for a variety of commercial and industrial users. New technologies that improve the efficiency of natural gas use have the potential to substantially reduce the per capita or per unit demand for this fuel. Also available for many years has been solar thermal technologies for use in water and space heating. As a non-renewable resource, natural gas supplies we eventually be exhausted. In the meantime, the City shall play a proactive role in facilitating financing and/or retrofitting with more efficient natural gas technologies.

TELEPHONE SERVICE

Verizon (formerly GTE) provides local residential and business telephone services to the General Plan planning area. Services include a variety of basic and special features, including local and long distance services, calling cards, business 800 numbers, and voicemail, as well as state-of-the-art data services such as internet and high-speed DSL connections.

The planning area includes three central switching offices, which function as the backbone of the communications system and are responsible for the connection of telephone and data transmissions. Central offices are located in Palm Desert, on the north side of Highway 111, between San Jose and San Juan Avenues; in Bermuda Dunes, on the east side of Washington Street at Avenue of the States; and in Thousand Palms, on the west side of Arbol Real, between La Canada Way and Ramon Road. Calls to the Sky Valley area are handled out of a central switching office in Desert Hot Springs.

CABLE TELEVISION SERVICE

Cable television services are provided to the City of Palm Desert through a franchise agreement with Time Warner, whose local service office is located at 41-725 Cook Street. Time Warner also provides cable services, on an individual basis, to residents in Thousand Palms, Bermuda Dunes, and Sun City. Time Warner currently provides access to 78 channels and digital cable services to Palm Desert customers. With digital television capabilities, customers who rent digital converter channel boxes from Time Warner will have access to approximately 400 channels. High Definition channels are also offered.

The current franchise agreement provides the City with two public access channels. One is used to broadcast City Council meetings and other activities at City Hall. The other, Channel 10, broadcasts Crime Watch and other local community service messages.

SOLID WASTE MANAGEMENT

Collection and Disposal Services

Waste Management of the Desert has an exclusive franchise agreement with the City of Palm Desert for the provision of solid waste collection and disposal services. Waste Management also serves the Thousand Palms, Bermuda Dunes and Sky Valley communities, which are within the General Plan study area. Commercial pick-up is offered up to six days per week, and residential pick-up is typically once per week. Waste Management offers additional services to large waste generators, including restaurants, retailers, hotels and resorts.

Throughout most of the planning area, Waste Management uses a 3-Cart Automated Collection System, which provides customers with one bin for trash, one for recyclables, and one for green waste. Gated residential communities use their own trash bins and a manual collection system. Trash and recyclable pick-up is offered in Thousand Palms, Bermuda Dunes and Sky Valley, but pick-up of green waste is not currently available in these areas.

During 2000, a total of 69,059 tons of trash were collected in the City of Palm Desert. Trash collected in the City and planning area is disposed at the Edom Hill Landfill, approximately four miles northwest of the Palm Desert city limits. The landfill is owned and operated by Riverside County, and it accepts waste from most Coachella Valley communities. The current operating permit allows for a maximum of 2,651 tons of waste per day. During 2000, the landfill received an average of 1,295 tons per day. In March 2000, the remaining capacity of the landfill was approximately 4.5 million cubic yards. The landfill is nearing its maximum capacity and is expected to close in 2004.

Landfill Alternatives

With the impending closure of the Edom Hill Landfill, the City of Palm Desert and other Coachella Valley communities must actively plan for and select viable alternative landfill sites. In 1997, the Riverside County Board of Supervisors approved the Eagle Mountain Landfill and Recycling Center. The landfill has not yet been constructed, but is expected to comprise 2,164 acres, and have a total capacity of 708 million tons and a life expectancy of 100 years. The landfill is being purchased by the Los Angeles County Sanitation District, however it will have a reserve capacity of 2,000 tons/day for waste from Riverside County. Although Eagle Mountain may become available for use by Palm Desert in the future, litigation has delayed its construction, and the City must pursue other options for the immediate future.

The Mesquite Landfill in Imperial County is also being purchased by the Los Angeles County Sanitation District and is expected to have a capacity similar to that of the Eagle Mountain Landfill. Its construction is also being delayed by litigation, and the future of both these landfills remains unclear.

The most viable near-term alternative for the City of Palm Desert is the Badlands Landfill, located northeast of the City of Moreno Valley off Highway 60. It is owned and operated by Riverside County and is prepared to accept solid waste from the Coachella Valley immediately. The landfill is permitted to receive up to 4,000 tons of waste per day. Other possible alternatives include the Lamb Canyon Landfill, located between the Cities of Beaumont and San Jacinto, and the El Sobrante Landfill, located south of the City of Corona.

Recycling Efforts

During 2000, a total of 13,963 tons of recyclable materials were collected within the City of Palm Desert. This includes 1,940 tons from commercial sources; 3,142 tons from residential curb-side sources; and 8,881 tons of concrete and other waste from construction sites. Green waste collected from the planning area is currently (2001) recycled by BioMass in Thermal. Other recyclable materials, such as glass, plastic, and newspaper are hauled to a third party recycler in Los Angeles. The City's recycling program has proven beneficial in the preservation of landfill space for non-recyclable materials, and the preservation of energy and other finite resources used in materials production.

Another important step in this effort is the solid waste recycling and transfer station project planned for development east of Monterey Avenue, immediately north of Dinah Shore Drive and adjacent to the Union Pacific Railroad lines. A 42,700 square foot building provides for the efficient consolidation and transfer of solid waste and a materials recovery facility (MRF). Trucks, shipping containers and rail transport are planned to transport unrecoverable waste materials to landfills. Plans also call for the creation of an on-site ABOP (anti-freeze, batteries, oil and paint) drop-off center, as well as a facility to take common hazardous household wastes. A 4,500 square foot Visitors and Education center is also planned at this site. Sensitive siting, planning and design assures compatibility of this facility with surrounding development.

FUTURE DIRECTIONS

The orderly and contiguous extension of water, sewer and utility services and infrastructure is essential to the logical and cost-effective growth of the City. The City must be actively involved in the planning, coordination and monitoring of these and other public services to adequately accommodate future growth facilitated by the General Plan. The City also has a responsibility to monitor the demand for and extension of new technologies, such as fiber optic cabling, and to coordinate the anticipated rush of multiple infrastructure and service providers. The General Plan provides service providers with information about the levels of growth anticipated in the planning area so that they can best meet the demands of the growing community.

GOALS, POLICIES AND PROGRAMS

Goal 1

A full range of water, sewer and utility facilities and services that safely, adequately and cost-effectively meet the immediate and long-term needs of the City.

Policy 1

The City shall monitor and coordinate with the CVWD, California Regional Water Quality Control Board and Riverside County Environmental Health to preserve and protect local and regional water resources against contamination and overexploitation.

Program 1.A

Support the efforts of CVWD to develop other resources for groundwater recharge, and to construct and expand facilities that provide for the treatment and distribution of reclaimed and/or recycled water.

Responsible Agency: Coachella Valley Water District, Public Works Department

Schedule: Ongoing

Program 1.B

The City and CVWD shall continue and extend their efforts to increase domestic water conservation by expanding efforts to increase the use of desert landscaping in all development, and the installation of efficient water-using technologies in new and substantially re-modeled buildings.

Responsible Agency: Coachella Valley Water District, Public Works Department

Schedule: Ongoing

Program 1.C

The City and CVWD shall explore and, as appropriate, implement actions and regulations that facilitate residential and business retrofits of landscaping/irrigation and water-using appliances/processes that substantially increase water use efficiencies.

Responsible Agency: Coachella Valley Water District, Public Works Department

Schedule: 2004-05, Ongoing

Program 1.D

To the greatest extent practical, the City and CVWD shall require new development to extend and connect to sewer lines rather than allow the installation of on-lot septic tanks. In the event on-lot septic systems are required, development shall be required to install “dry sewers” in anticipation of future sewer main extensions.

Responsible Agency: Coachella Valley Water District, Public Works Department, RivCo Environmental health

Schedule: Ongoing

Policy 2

In the event that a sewer line exist in the right-of-way where a lateral line is the only connection required to serve a lot, sewer connection shall be required at the time the lot is developed.

Policy 3

In the event a sewer line exist in the right-of-way where a for-sale residential unit is served by a septic system, the septic system shall be properly abandoned at the point of sale, and the unit shall be connected to the sewer system.

Policy 4

The City shall make every effort to assure and shall assist in facilitating the timely and cost-effective expansion and extension of services that complement community development.

Program 4.A

The City shall coordinate its Capital Improvement Program with those of local utility and service providers to ensure adequate and cost-efficient capacity of services and facilities for future growth.

Responsible Agency: Public Works Department, Community Development Department, Coachella Valley Water District, Utilities

Schedule: 2005-06

Program 4.B

The City shall confer and coordinate with appropriate public and quasi-public agencies and utilities in conducting on-going evaluations of infrastructure capacity, and assessing expansion and improvements needed to carry out responsible growth management.

Responsible Agency: Community development Department, Public Works Department, Coachella Valley Water District, Utilities and Service Providers

Policy 5

The City shall confer and coordinate with utility and service providers in planning, designing and siting of distribution and supporting facilities to assure the timely expansion of facilities in a manner which minimizes environmental impacts and disturbance of existing improvements.

Schedule: 2004-05

Program 5.A

The City shall confer and coordinate with SCE, SCG, CVWD and other installers of utility infrastructure to monitor all excavation work that may threaten existing underground utilities. Construction activities that may inhibit access to existing facilities shall be required to move these facilities in accordance with applicable utility standards.

Responsible Agency: Public Works Department, CVWD, SCE, SCG, Other Utility Providers

Schedule: Ongoing

Program 5.B

The City shall encourage the consolidation of underground utility lines and other subsurface transmission facilities as a means of limiting the impact of these facilities on the disruption of traffic and roadways.

Responsible Agency: Public Works Department, CVWD, SCE, SCG, Other Utility Providers

Schedule: Ongoing

Policy 6

The City understands and proactively supports the wide-spread integration of energy resource conserving technologies throughout all economic sectors of the community.

Program 6.A

The City shall explore and, as appropriate, implement actions and regulations that facilitate residential and business conservation strategies and the implementation of technology retrofits of that substantially increase energy use efficiencies.

Responsible Agency: Community Development & Public Works Departments, SCE, CCG, IID

Schedule: 2004-05, Ongoing

Policy 7

With other local jurisdictions, the City shall be proactive and assume a leadership role to continue to explore the potential for and appropriateness of assuming ownership of local electric transmission and distribution infrastructure in the City and other contiguous areas of the Coachella Valley.

Policy 8

The City shall confer and coordinate with its solid waste franchisee to fully meet and, if possible, exceed the provisions of AB 939 by expanding recycling programs that divert valuable resources from the waste stream and returning these materials to productive use.

Policy 9

City shall support, and to the greatest extent practical, shall encourage commercial and industrial businesses to limit and reduce the amount of packaging and potential waste associated with production and sale of products.

Policy 10

Prior to the closure of the Edom Hill Landfill, the City shall select a viable, long-term alternative landfill site(s), which has sufficient capacity for the City's solid waste and can be utilized in a cost-effective manner.

Program 10.A

The City shall confer and coordinate its solid waste franchise and, as appropriate, CVAG in identifying and prioritizing alternative landfill sites to serve the City and the study area.

Responsible Agency: Community Development Department, Solid Waste Franchisee, CVAG

Schedule: 2004-05

Policy 11

Utility lines on major streets and scenic roadways shall have primary consideration for undergrounding, with pro-active consideration also for utility lines impacting residential neighborhoods.

Policy 12

Major utility facilities, including power and other transmission towers, cellular communication towers, and other viewshed intrusions, shall be designed and sited to assure minimal environmental and visual impacts and environmental hazards.

Policy 13

The City shall encourage the planning, development and installation of state-of-the-art telecommunications and other broadband communications systems as essential infrastructure for maintaining the City's comparative advantage as a business and education center, and to enhance the quality of life of the City's residents and visitors.

Program 13.A

The City shall confer and coordinate with Verizon, Time Warner and other telecommunication and digital broadband cable service providers to expand the installation of fiber optic lines and facilities, which provide a full range of high speed, high capacity digital services to the City, its residents and the business community.

Responsible Agency: Community Development Department, Verizon, Time Warner

Schedule: 2004-05, Ongoing

Policy 14

As a means of reducing and controlling costs of electrical power, the City shall assume a proactive leadership role with other local jurisdictions to continue to explore, and if determined appropriate, implement local control of electric generation, transmission and/or distribution infrastructure in the City and other contiguous areas of the Coachella Valley.

Program 14.A

City shall support, and to the greatest extent practical, shall encourage commercial and industrial businesses to limit and reduce the amount of packaging and potential waste associated with production and sale of products.

Responsible Agency: Community Development Department, City Council

Schedule: Ongoing

PUBLIC BUILDINGS AND FACILITIES ELEMENT

PURPOSE

Public and quasi-public facilities are built to accommodate the needs of the community, and some play a major role in determining the location, intensity and timing of future development. These facilities also constitute an important part of the community's quality of life. The City is host to a wide range of public buildings and facilities, including City Hall, fire stations, water wells, electric power substations, telephone and cable transmission lines, schools, and libraries. The Public Buildings and Facilities Element provides background information on various structures and facilities operated by public and quasi-public agencies in the City and reflects the state of available technological and organizational resources. The element reviews these buildings and facilities in light of the issues of land use compatibility, aesthetic impacts, and functionality. It is also meant to provide sufficient information to assure coordinated, long-term planning that keeps pace with the growing community.

BACKGROUND

The Public Facilities Element is directly related to the Land Use, Circulation and Community Design Elements, providing direction to help keep pace with land use patterns, growth in demand and the changing needs and desires of the community. Additionally, all other elements in the Public Services and Facilities Chapter are interrelated and associated with this element. Most public buildings and utility sites are shown on the General Plan map included in this element. The ability of the City and other responsible public and quasi-public agencies to provide necessary facilities is also directly related to the Economic Development Element and the strength of the local and regional economy.

According to Government Code Section 65103(c), the planning agency is to "annually review the Capital Improvement Program of the City or County and the local public works projects of other local agencies for their consistency with the General Plan..." Government Code Section 65303 states that the local jurisdiction may emphasize the importance of this issue by requiring an optional Public Facilities Element in the General Plan.

The location of public buildings and facilities is largely dependent upon their function in the community. These functional criteria do not preclude the need for these facilities to be logically integrated into the City's existing and planned land use patterns. Public buildings that serve as offices in which residents and City officials conduct business should be conveniently located and provided with safe access and adequate parking. While much of the following discussion focuses on City buildings and facilities, utility buildings and substations are also given special attention with regard to their compatibility with surrounding lands.

PUBLIC BUILDINGS AND FACILITIES

City Hall/Civic Center

The Palm Desert Civic Center complex is situated on a 72-acre parcel at the northeast corner of Fred Waring Drive and San Pablo Avenue. The site includes City Hall, Civic Center Park, and the Palm Desert Station of the Riverside County Sheriff's Department.

Constructed in 1983, the Palm Desert City Hall is a complex of three buildings that encompass approximately 42,000 square feet: the Administrative Services Building, Community Services Building, and City Council Chambers. The facility includes offices of the City Mayor, City Council, City Manager, City Clerk and other government departments.

Corporate Yard/Maintenance Facility

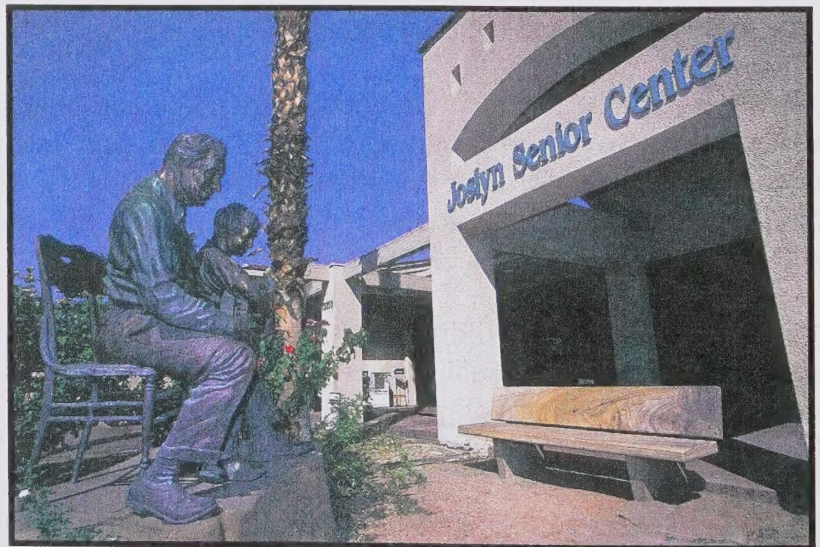
The City's maintenance yard is located at 74-705 42nd Avenue, at the intersection of 42nd Avenue and Joni Drive. The recent extension of Joni Drive divided the maintenance yard into three parcels. The largest parcel serve as the main corporation yard and consists of 1.2 acres and includes a 6,500 square foot maintenance building, an office building and vehicle storage yards. Westward expansion of the yard was recently (2002) completed, adding 3.32 acres of land and 14,000 square feet of building space to the existing maintenance facility. The two remaining parcels are currently used for storage and are located at 74-796 Velie Way and 74-833 Joni Drive.

Palm Desert Community Center

The Palm Desert Community Center is located at 45-480 Portola Avenue and has been in operation for approximately three years. The community center occupies a City-owned building (the old City library building), but is operated by the Coachella Valley Recreation and Parks District. The facility includes two meeting rooms, which can be expanded into a single large room, and one conference room. Various community groups, including scouts, bridge clubs and book clubs, use the rooms for meetings, exercise programs and support groups.

Joslyn Senior Center

The Joslyn Senior Center is an independent, non-profit organization that is partially funded by the City of Palm Desert. The center is located at 73-750 Catalina Way and occupies a 20,000 square foot building on a 3-acre site. Programs and activities include crafts, music, dance, fitness, support groups, educational seminars, and a computer lab.



Educational Institutions

Palm Desert has emerged as an important center of education, providing a full range of public and private facilities for students in grades K through 12. It is also home to a well-established community college and to new campuses offering four-year and graduate programs. The City's school facilities are briefly described below and are discussed in greater detail in the Schools and Libraries Element.

K Through 12 Schools: The Desert Sands Unified School District (DSUSD) provides public education to most areas of Palm Desert. The Palm Springs Unified School District (PSUSD) serves the northwest portion of the City corporate limits and the unincorporated Thousand Palms community. The General Plan planning area is served by seven public schools, including the following: Lincoln Elementary on Rutledge Way; Washington Elementary on Portola Avenue; Carter Elementary on Hovley Lane; Ford Elementary on Warner Trail; Lindley Elementary on Robert Road (in Thousand Palms); Palm Desert Middle on Rutledge Way; and Palm Desert High on Phyllis Jackson Lane. A new elementary school is also planned on lands east of Tamarisk Row Drive and north of Country Club Drive, and will be located near a new City regional park.

Five private grade schools are also located in the City, including: Desert Adventist Academy on Country Club Drive; Sacred Heart Catholic School on Deep Canyon Drive; St. Margaret's Episcopal School on Highway 74; and two Montessori Schools. Montessori School of the Desert is on Fred Waring Drive. Montessori School of the Valley has two campuses, one located on Warner Trail serving pre-school and kindergarten students, and a second on California Drive serving 1st through 5th graders.

Colleges and Universities: Palm Desert is also home to three colleges, which offer a wide range of associate, undergraduate, and graduate degrees, as well as certificate and vocational programs of study. College of the Desert (COD) is a California State Community College located on Monterey Drive, which currently (2001) enrolls approximately 8,600 students. The Coachella Valley Campus of Chapman University, located on Cook Street, is focused on the adult learner and offers a variety of extended education programs.

The Coachella Valley Campus (CVC) of California State University at San Bernardino (CSUSB) enrolls approximately 800 students. It is currently (2001) located on the COD campus, but a new facility is under construction at the northeast corner of Cook Street and Frank Sinatra Drive. The master-planned Coachella Valley Campus will ultimately provide the full range of educational programs, athletic facilities and supporting operations and facilities. This campus is expected to occupy most of a 200 acre site provided by the City for development of higher education facilities.

The Richard J. Heckman International Center for Entrepreneurial Management is currently under construction at the southeast corner of Gerald Ford Drive and Cook Street. This educational center is part of the Gary Anderson Graduate Business School at the University of California at Riverside (also please refer to the Schools and Libraries Element).

Libraries

The Palm Desert Public Library is a branch of the Riverside County Library System and occupies a 20,000 square foot facility at 73-300 Fred Waring Drive. The library includes approximately 75,000 volumes and shares its online research database and checkout desk with the College of the Desert (COD) Library, which occupies the same building. The COD Library opened in 1996 and contains more than 50,000 volumes.



The Thousand Palms branch of the Riverside County Library System opened in the mid-1990s, when bookmobile service to the Thousand Palms community was discontinued. The library currently occupies a room at the Thousand Palms Chamber of Commerce building at 72-715 La Canada Way. The County and residents of Thousand Palms are raising funds and seeking grants to construct a permanent facility on a donated parcel of land on Robert Road. Additional information regarding public libraries in the planning area is provided in the Schools and Libraries Element.

U.S. Post Offices

The City of Palm Desert is served by two post offices located at 74-801 Hovley Lane and 45-300 Portola Avenue. The Thousand Palms area is served by a post office located at 72-630 Ramon Road. Each of the facilities provides basic postal services, including post office boxes, voter registration forms, shipping services and postage stamp sales.

UTILITY INFRASTRUCTURE

The Coachella Valley Water District, Southern California Edison, Imperial Irrigation District, Southern California Gas Company, Verizon and Time Warner are the primary utility companies serving the City of Palm Desert. Major utility buildings and facilities in the planning area include CVWD's wastewater treatment plant on Cook Street and a variety of domestic water wells and above ground storage tanks. (also see Water, Sewer and Utilities Element).

The City currently (2001) has three Verizon central telephone switching offices at the following locations: 1) in Palm Desert, on the north side of Highway 111, between San Jose and San Juan Avenues, 2) in Thousand Palms, on the west side of Arbol Real, between La Canada Way and Ramon Road, and 3) in Bermuda Dunes, on the east side of Washington Street at Avenue of the States.

SCE operates three substations in the planning area, including: 1) Silver Spur Substation, south of Haystack Road and west of Portola Avenue, 2) Palm Village Substation, south of Highway 111 and east of Deep Canyon Road, and 3) Concho Substation, on the south side of Country Club Drive and east of Cook Street, adjacent to Indian Ridge Country Club. The SCE substation located north of Clancy Lane and west of Monterey Avenue also serves the City.

IID operates several substations within or near the planning area, including the following: 1) North View Substation, near the intersection of Avenue 38 and Adams Street, in the vicinity of Sun City Palm Desert, 2) Edom Substation, just north of Interstate-10 near Monterey Avenue in Thousand Palms, and 3) Sky Valley Substation, on Avenue 22 near Hot Springs Road in Sky Valley.

The Coachella Valley Substation functions as a key link between IID and Southern California Edison, and has allowed IID to strengthen its access to the rest of the power grid. In the event that the power flow from the Imperial Valley is disrupted, IID could use this route to service its customers in the Coachella Valley.

Utility infrastructure, including electrical substations, water wells and telecommunication switching facilities, can generate noise and/or detract from the scenic value of an area. To minimize the visual impacts of utility infrastructure, telephone and other equipment buildings can be constructed in an architectural style that is compatible with the surrounding built environment. Decorative block walls and landscape buffers may be used to integrate utility infrastructure into the surrounding area, and in many instances utility transmission lines can be undergrounded to completely shield them from view.

CRITICAL STRUCTURES

Many of the community's public facilities are especially critical following a hazardous event, such as an earthquake, flood or wildfire. Fire stations, hospitals, and major airports and roadways are examples of critical structures. To the greatest extent practical, these facilities should be located in areas expected to experience the least impact from seismic or other hazardous occurrences. In particular, they should not be located within the 100-year floodplain or in close proximity to a fault zone.

Due to the City's high potential for seismic damage, special considerations should be made in the construction of future critical structures. These include thorough engineering, building location and design analyses. Building design should include allowances for and preclude the offset of building foundations resulting from strong ground shaking or surface displacements. Please refer to the Geotechnical, Health Services, and Emergency Preparedness Elements for more information about critical structures.

FUTURE DIRECTIONS

Although the City may not have direct responsibility for the provision of many of the public buildings and facilities discussed in this and other General Plan elements, the City does have substantial influence and plays an important advisory role in the planning and construction of these facilities by others. Facilities planning decisions by utilities, educators and health service providers may have far-reaching consequences for community neighborhoods and the entire City.

The City can assist the planners of these facilities by providing important information on growth in development and population, changes in the demographic makeup of the community, economic projections, City capital improvements planning and other information that may affect

planning and timing of new facilities. Close and on-going City consultation and coordination with other responsible agencies will assure that essential and otherwise important public facilities will be available to meet current and future needs of the community.

The City of Palm Desert routinely prepares and updates a Capital Improvement Program (CIP), which identifies proposed and existing projects that require governmental funding, such as traffic signals, street widenings, parks and recreation facilities, public parking lots and municipal buildings. The City funds these improvements using a variety of sources, including a New Construction Tax, developer fees and Measure A revenues. The use of the five-year Capital Improvements Program planning process can be expanded to better coordinate this activity with the planning of other agencies.

The New Construction Tax is an integrated impact fee that partially funds the acquisition and development of public facilities and structures. The tax is imposed upon application to the City for a building permit for the construction of a new building or addition. In 2001, the tax rate was \$0.40 per square foot of residential development and \$0.05 per square foot of commercial or industrial development. The City collects other developer impact fees for the installation and maintenance of traffic signals, drainage improvements, and parks and recreation facilities.

It is essential that the City annually review and adjust its CIP and developer fees to assure adequate resources to maintain these facilities, to remain consistent with the General Plan and to respond to changing development trends. The City shall also periodically review the method by which the construction and maintenance of public facilities are financed.

GOALS, POLICIES AND PROGRAMS

Goal 1

The provision of the full range of dependable and cost-effective public buildings and facilities, which meet the functional, social and economic needs of the entire community.

Goal 2

The compatible and aesthetically satisfying integration of public buildings and facilities into the City's built and natural environments.

Policy 1

The City shall coordinate the planning and construction of public and quasi-public buildings and facilities with all agencies, districts and other providers to preclude duplication and to ensure the timely availability of these facilities to meet the needs of future growth and development.

Program 1.A

The City shall regularly meet and consult with other public and quasi-public agencies, shall share information on growth rates and development patterns, and shall coordinate the provision of public facilities to meet existing and future community needs.

Responsible Agency: Community Development and Public Works Departments, CVWD, Other Public and Quasi-Public Agencies and Service Providers

Schedule: Immediate, Continuous

Policy 2

The City shall evaluate and assess the demand for new public facilities associated with proposed development and shall assure that new projects make material and financial commitment sufficient to provide these facilities.

Program 2.A

The City's development review process shall include a comprehensive assessment of project-related demand for existing and/or new public facilities, and shall assure that sufficient developer financial and other resources are brought to bear to provide these facilities. Conditions of Approval, Development Agreements or other appropriate mechanism shall be used to assign responsibility and assure appropriate facilities and levels of service are available.

Responsible Agency: Community Development and Public Works Departments, City Council, Other Public and Quasi-Public Agencies and Service Providers, Developer

Schedule: Immediate, Continuous

Program 2.B

Through the City's development and environmental review process the impacts of proposed development on public facilities shall be assessed. In the event a project may have a significant adverse effect on public facilities, the City may require special studies that provide an in-depth impact analysis and mitigation program.

Responsible Agency: Community Development Department, Public Works Department

Schedule: Immediate, Continuous

Policy 3

The City shall coordinate with public utility providers and other public and quasi-public agencies to assure the most compatible integration of utility buildings and facilities into the City's land use pattern.

Program 3.A

All new public facilities, including utilities, utility buildings, signage and other development components shall be designed in a manner that makes them aesthetically compatible with surrounding lands. Siting and design, landscape buffers, architectural elements and other appropriate design solutions shall be required, as appropriate.

Responsible Agency: Community Development Department

Schedule: Immediate, Continuous

Program 3.B

To the extent appropriate and practical, all utility facilities (with the possible exception of substations, pumping stations and outdoor storage areas) shall be fully enclosed in buildings that are aesthetically compatible with the areas in which they are located.

Responsible Agency: Community Development Department

Schedule: Immediate, Continuous

Policy 4

To the extent practical, the City shall identify and shall make every effort to assure the long-term availability of sites for the development and expansion of City buildings, utility infrastructure, and other public facilities.

Program 4.A

Periodically review City land use patterns and the City land use map, and confer and coordinate with public utilities and other public and quasi-public agencies regarding their long-term needs.

Responsible Agency: Community Development Department, Public Works Department, Public and Quasi-Public agencies serving the City

Schedule: 2004-05; every five years

Policy 5

To the extent possible, the City shall require that all critical structures located within the City be constructed to maintain sufficient structural integrity to remain functional following the maximum probable earthquake and associated ground shaking at the site of the structure.

Program 5.A

Critical structures and facilities (including hospitals, fire stations, police stations, water reservoirs and communications facilities) shall be restricted from geologically and hydrologically hazardous areas, to the greatest extent practical.

Responsible Agency: Community Development Department, Public Works Department, Building and Safety Department

Schedule: Immediate, Continuous

Program 5.B

All proposals for new critical structures, regardless of location within the City, shall demonstrate safety in terms of the geologic, hydrologic and other engineering conditions of the site.

Responsible Agency: Community Development Department, Building and Safety Department, Public Works Department

Schedule: Immediate, Continuous

Policy 6

Public buildings and facilities that house City government activities shall be constructed in a functional and aesthetically pleasing manner, and shall be conveniently located and accessible to residents and City officials.

Policy 7

The City shall encourage the undergrounding of existing electrical power lines, to the greatest extent practical, and shall require undergrounding of all new electrical and other utility lines

Program 7.A

Consult and coordinate with electric power providers, telecommunications companies and cable service companies regarding the costs, construction methods, potential barriers, and feasibility of undergrounding electrical and other utility lines.

Responsible Agency: Community Development Department, Public Works Department, Southern California Edison, Imperial Irrigation District

Schedule: Immediate, Continuous

Policy 8

The City shall ensure that all public buildings and facilities comply with the same development standards and regulations as private development.

Policy 9

The City shall maintain and regularly evaluate and update its Capital Improvement Program (CIP), which shall also address the facilities needs of other public and quasi-public agencies.

Program 9.A

Establish and implement a Capital Improvement Program review schedule, which includes annual reviews and comprehensive revisions every five years. Primary planning focus shall be on City buildings and facilities, but the CIP shall also address the facilities needs of other public and quasi-public agencies

Responsible Agency: City Manager, City Council, All City Departments, Other Public/Quasi-Public Agencies

Schedule: Annual review; comprehensive revision every five years

Policy 10

In order to optimize use and value, the City shall take advantage of opportunities that allow the buildings and/or facilities of other providers to be used by other segments of the community.

Program 10.A

The City shall continue to work closely with the school districts serving the City and planning area to encourage the joint development and use of City and educational facilities for cultural, recreation and emergency response purposes.

Responsible Agency: City Manager, City Council, Parks and Recreation Department, Desert Sands Unified School District, Palm Springs Unified School District, College of the Desert, California State University/San Bernardino, University of California/Riverside.

Schedule: Annual review; comprehensive revision every five years

POLICE & FIRE PROTECTION ELEMENT

PURPOSE

The Police and Fire Protection Element addresses two of the most essential functions of government, which are to assure the provision of adequate police and fire protection services. The Element reflects the City's commitment to providing the best public safety services available. To enhance services in the most cost-effective manner possible, contractual arrangements are in place for both police and fire protection. The purpose of this element is to demonstrate its relationship to other General Plan elements, to describe the demand for police and fire protection services, to identify standards of performance or responsiveness, and to set forth goals, policies and programs that reinforce and strengthen the City's commitment to the provision of quality, responsive service.

BACKGROUND

The Police and Fire Protection Element is directly related to the Land Use Element, with the proximity of police and fire stations to developed areas being critical to the responsiveness of emergency personnel. Land use compatibility must also be carefully evaluated when determining the appropriate location of facilities that have the potential to generate especially high demand for these services.

The Police and Fire Protection Element is also directly related to the Circulation Element, given that the design, capacity and congestion of City streets are critical factors affecting the timely provision of effective emergency response. The availability of water supplies and adequate fire flows are also related to the Water, Sewer and Utilities Element.

This Element is also directly related to the Health Services and Emergency Preparedness Element, as fire and police personnel are responsible for responding effectively and coordinating other service providers during emergency situations. Finally, both real and perceived effectiveness of public safety services, maintenance of economic vitality and the associated sense of community safety are also integrally linked to the Economic Development Element.

According to Government Code Section 65302(g), the General Plan is required to include a Safety Element, or its equivalent, which addresses the protection of the community from unreasonable risks associated with motor vehicle safety, structural and wildland fires, crime and other threats and emergencies. Public Resources Code Section 4125(a) also references the State Board of Forestry, which classifies lands for the purpose of identifying hazards and establishing responsibility. Unclassified lands fall under the fire management jurisdiction of the City or appropriate federal agencies, such as the U.S. Bureau of Land Management or U.S. Forest Service.

The provision of police and fire protection services is somewhat shaped by the predominant pattern of land use and the seasonal changes in population and the high number of tourist visitors to the community. Many community residents live within gated communities and have on-site security, which, in theory, enhances protection and reduces calls for service; the actual effect on demand from gated communities is uncertain.

POLICE PROTECTION

Police protection services are provided to the City of Palm Desert through a contract with the Riverside County Sheriff's Department, which operates the City Police Department out of the Palm Desert Station located at 73-520 Fred Waring Drive. The Palm Desert Station not only provides police protection to the City of Palm Desert, but also serves as the Sheriff's Department base of operations for the cities of Rancho Mirage and Indian Wells, and unincorporated County lands west of Washington Street (including Thousand Palms). Lands east of Washington Street, including Bermuda Dunes and other portions of the planning area, are served by staff based at the Indio Station of the Riverside County Sheriff's Department.



Police Personnel

While the levels of staffing may change over time, the Palm Desert police force currently (2001) comprises a total of 70 sworn officers, including: 45 deputies (with 10 dedicated to traffic), 6 dedicated deputies, 4 dedicated sergeants, 6 sergeants, 3 lieutenants, and 6 investigators. The term "dedicated" refers to those deputies holding specialized positions, including a Gang Deputy, Community Oriented Policing Deputy, two School Resource Officer Deputies, a Deputy assigned to the Coachella Valley Narcotics Task Force, and a Deputy assigned to the Career Criminal Apprehension Team. With this level of staffing, the City of Palm Desert currently provides about 1.75 sworn officers for every 1,000 residents, which is comparable to the regional average and provides an effective level of police protection. The County assigns one full-time deputy to patrol between Washington Street and North Palm Springs, including Sky Valley (Dillon Road corridor) and the Thousand Palms community.

Currently (2001), the patrol division is organized into three shifts: day, swing and graveyard. There are ten officers deployed on each shift working a ten-hour workday. Dayshift (Watch II) starts at 6:00 AM and ends at 4:00 PM. Swing shift (Watch III) starts at 2:00 PM and ends at midnight. Graveyard shift (Watch I) starts at 9:00 PM and ends at 7:00 AM the next morning. Between 9:00 PM and midnight there is a three-hour overlap of graveyard and swing shifts. Between 2:00 PM and 4:00 PM there is a two-hour overlap of day and swing shifts. Between 6:00 and 7:00 AM there is an hour overlap between graveyard and day shifts. About an hour of overlap time is consumed in daily shift briefings and the loading and unloading of patrol cars.

The City is divided into four geographic areas or “beats”. They are the “30” beat (roughly the business area along Highway 111 to the east and west boundaries of the City), the “32” beat (the area south of Highway 111 to the south city limits), the “36” beat (north of the “30” beat to the northern city limits), and the “34” beat (east end of the City and including Palm Desert Country Club).

Currently, no specific deputy is assigned to a particular beat area. Deputies learn all beat areas within the City, and are qualified to work any beat on any shift. Deputies may work one beat one day and a different beat the next day. Preventative patrol is the primary mission of the beat deputy. Deputies do not leave their assigned beat areas unless authorized to do so by a sworn supervisor, in the case of an emergency or if dispatched to do so.

Palm Desert’s minimum patrol staffing is five officers on day shift, five officers on swing shift, and four officers on the graveyard shift. This deployment allows both the day and swing shifts to field an additional unit, which is used as a “rove” car. This car does not stay in an assigned beat, but responds to calls as needed anywhere in the City. The majority of a deputy’s shift is consumed by handling calls for service. City deputies handled 34,179 incidents in 2000.

The City traffic control team includes the addition of two motorcycle patrol positions in the 2001-02 budget to enhance traffic control, enforcement and collision response. The traffic team may also be available to enhance traffic control during public works projects and other construction activity in the public right-of-way, on an as needed basis. As traffic volumes continue to grow, the safe and efficient movement of vehicles throughout the community will benefit from on-going enforcement and response.

The patrol and other vehicles dedicated to the Palm Desert police fleet include 9 marked deputy patrol vehicles, 3 marked sergeant patrol vehicles, and 2 Palm Desert Community Service Officer vehicles. The City recently purchased a police car replica golf cart, which is used in parades, golf tournaments and other public events to enhance law enforcement support and public relations. The City also has marked police bicycles which it utilizes for special event operations and to supplement patrol as needed.

Demand for Police Services

In 2000, the Palm Desert Station responded to 34,179 incidents in the Palm Desert city limits. The Station also received calls for service from unincorporated lands in the General Plan planning area, including 1,480 calls from Thousand Palms; 989 calls from Tri-Palms Estates; 600 calls from Ivey Ranch and surrounding unincorporated lands east of Thousand Palms; 487 calls from Sun City Palm Desert; 55 calls from along Thousand Palms Canyon Road; and 930 call from Sky Valley.

Police response times vary depending on the location of the caller and responding patrol cars. All calls are prioritized, and response times are contingent on the number of calls pending and their urgency. In 2000, the Palm Desert station received 17,093 emergency phone calls from within the Palm Desert city limits. The average response time for the highest priority emergency calls (code 1) was 4.6 minutes.

Over the past five years, burglaries have generated one of the highest demands for police services. However, between 1995 and 2000 the number of burglaries decreased by 46%, the incidence of theft has remained steady or gone down, and misdemeanor assaults were also lower. Changes in crime rates may be somewhat attributable to the regional economic recovery and increased local legitimate economic opportunity. This decrease also correlates with a recent, substantial increase in sworn personnel.

Crime Prevention and Public Safety

Measures which serve to preclude or limit criminal activities, and which preempt public safety issues from arising are preventative steps that extend the effectiveness of the City police force. Methods of reducing or preventing crime include adequate street and security lighting, and the integration of “defensible space” design concepts, including the use of appropriate security hardware and strategic siting and visibility of buildings and other structures, and parking facilities.

Defensible space concepts are applied to residential, commercial and other land uses, and are designed to limit opportunities for criminal activities, permit easier surveillance and to enhance law enforcement’s ability to provide the highest possible level of security. Defensible space address siting of buildings, location of parking lots and loading areas, ability to circulate around buildings, and the ability to bring police and fire protection services to bear on emergency situations. Defensible space concepts also involve designs that enhance the social fabric of a development or community by increasing communication, and by emphasizing and enabling mutual protection.

The Palm Desert Station implements a wide range of public safety programs, including bicycle patrols that monitor the City’s business and residential districts, and a Mall Store Front program that patrols mall parking lots and retail areas. The Community Oriented Policing Officer (COP) directs the community’s Neighborhood Watch program and the Crime-Free Multi-Housing program, and provides crime prevention training to businesses and residential communities.

The School Resource Officer Program provides a variety of safety programs to local schools, including the Stranger Danger Program, Internet Safety for Kids, Career Day presentations, and the Palm Desert Cadet Program. The Career Criminal Apprehension Team is responsible for identifying criminals with the potential of being prosecuted under the three strikes law. The Coachella Valley Narcotics Task Force combat s the manufacturing, distribution and sale of illegal drugs, and operates and coordinates with other Coachella Valley law enforcement agencies.

The Desert Sands Unified School District has cited the need for fourteen (14) additional schools between 2001 and 2016. The School Resource Officer Program will require periodic review to monitor the need for additional resource officers. Where feasible, City/District cost-sharing measures should be expanded to meet these future needs.

The City created a Citizens-on-Patrol (COPS) program in 2002. The program consists of volunteers, 55 years of age and older, who would serve as the “extended eyes and ears of the Sheriff” by notifying the Police Department of crimes and/or suspicious activities observed in the City. The volunteers would also provide traffic control support, as necessary. The COPS

program would be city-sponsored and managed, but would operate in conjunction with the Riverside County Sheriff's Department.

Other Law Enforcement Services

In addition to contract services provided to the City, the City's Police Department has direct access to a wide range of additional services and capabilities. These include 24-hour 911 self-contained dispatching, the desert-based Emergency Services Team, (EST), the Hostage Negotiation Team, Hazardous device team, the County Canine (K-9) Program, and bloodhounds. Additional services also include aviation support, Press Information Officer, Chaplain services, sexual assault medical exams, search and rescue, and dive team.

The Police Department also provides a variety of public safety programs, including the T-400 Bicycle Detail, the store-front Mall substation staffed by two Sheriff Service Officers, the Crime Free Multi-Housing Program, and School Resource Officer programs (Red Ribbon Week, Stranger Danger, Internet Safety for Kids, bicycle safety, etc.). These programs also include conflict mediation training, Youth Court diversion program (where kids play-act the roles of law enforcement and the courts), the Palm Desert Explorer Post, the Police Action Counseling team (PACT), and the Neighborhood Traffic Enforcement Program.

The specific law enforcement needs, which would be generated by future development in the planning area, cannot be predicted with confidence and will vary from community to community, and by land use type. It can be anticipated, however, that as development continues in the planning area, so will the need for expanded police protection services and personnel. New or expanded concepts of community policing will also be important to ensure efficient and cost-effective law enforcement and associated services.

FIRE PROTECTION



Fire protection services are provided to the City of Palm Desert by the Riverside County Fire Department, which in turn contracts with the California Department of Forestry. The service contract for fire protection is entered into jointly by the member jurisdictions of the Cove Communities Service Commission, which include the cities of Palm Desert, Rancho Mirage and Indian Wells.

Each city has access to and benefits from the services provided by fire stations in the other two cities. Therefore, the City of Palm

Desert receives additional fire support, as necessary, from Station No. 55 in Indian Wells, and Stations No. 50 and No. 69 in Rancho Mirage.

Services provided under the Cove Communities contract include fire fighters, paramedics, fire inspectors, maintenance of fire stations and vehicles, and review of commercial and housing development plans. The cost to each city is based on the City's total assessed value. The City of Palm Desert funds its share of fire protection costs using revenues collected under the Proposition A Fire Tax and transfers from the General Fund.

Fire Department Staffing

Staffing of the Cove Communities Fire Department is currently at 84 personnel, distributed across the stations located within the three cities, equating to approximately 1.44 full-time fire personnel per 1,000 population. Draft 2001-02 budgets for the department will add another nine positions to the department, thereby bringing the level of service up to 1.59 personnel per 1,000 population, which is comparable to the national average.

Given that much of the development in the City and planning area is relatively new and meets the most recent fire codes, a ratio of 1.59 personnel per 1,000 residents appears to provide an effective level of department staffing and associated protection. Allocation of staff is expected to be adjusted over time to provide for new technologies and management strategies. Imminent increases in staffing will enhance emergency medical response and reinforce the City's current "Class 3" ISO fire insurance rating.

Fire Department Equipment

The Palm Desert Fire Department is equipped with a wide range of fire fighting and emergency medical facilities. These include seven fully equipped paramedic response units with radios, two ladder trucks, five inspector units and one utility unit, eight defibrillators, jaws of life units, helmets, breathing devices and other equipment.

Regional Fire Protection Program

The Riverside County Fire Department operates under a Regional Fire Protection Program, which allows its fire stations to actively support one another regardless of geographic or jurisdictional boundaries. When an emergency call is received, the station that is physically closest to the emergency will respond, even if the emergency is located outside the station's official "jurisdiction." This provides the community with the most effective and efficient method of emergency response, and allows for the shared use of specialized equipment and personnel between neighboring communities.

The Riverside County Fire Department maintains three fire stations within the incorporated boundaries of the City of Palm Desert, two in its sphere-of-influence, and two in the expanded General Plan planning area. Following are descriptions of the staff and equipment available at each station.

Palm Desert Station No. 33

Station No. 33 is located on Town Center Way, just south of Fred Waring Drive in Palm Desert. The station serves as the division headquarters for fire stations in the central/southern Coachella Valley and includes the Division Chief's administrative office.

Station No. 33 is staffed by a total of 24 crewmembers, including the Battalion Chief Officer. Equipment includes one engine staffed by 3 people per day; one ambulance, staffed by 2 people per day; one company truck staffed by 4 people per day; and one reserve truck, which serves as a back-up vehicle when other equipment is unavailable. The Fire Department is recommending that one additional firefighter be assigned to the engine during Fiscal Year 2001-2002, to provide acceptable staffing levels at the station.

A breathing support unit, manned by a volunteer company, is also housed at Station No. 33. It is not part of the Cove Communities contract, and therefore is not funded by the Cove communities. Rather, it is owned, operated and funded by the County of Riverside and may be used by any of the County's fire stations, as necessary.

Palm Desert Station No. 71

Station No. 71 is located at the southwest corner of Portola Avenue and Country Club Drive. This station serves as the administrative hub for the Palm Desert Volunteer Fire Company, which currently includes 12 volunteers, but may include a maximum of 25.

The station is staffed by a total of 8 crewmembers, 4 of which are on duty each day. Equipment includes one telesquirt engine with a 50-foot hydraulic ladder, which is staffed by 2 people per day; one ambulance staffed by 2 people per day; and one reserve engine, which functions as a back-up unit and is staffed by volunteers.

The station also contains one brush unit, which is specifically designed for use in wildland fires and is typically staffed by volunteers. This unit is not part of the Cove Communities contract and therefore is not funded by the Cove Communities. Rather, it is owned, operated, and funded by Riverside County and is being used throughout the Coachella Valley, as needed.

Palm Desert Station No. 67

Station No. 67 is located at 73-200 Mesa View Drive in Palm Desert. It is staffed by a total of 8 personnel, 4 of which are on duty each day. Equipment includes one engine and one ambulance, each of which is staffed by 2 people per day. To assure adequate staffing levels for the community, the Fire Department is recommending that an additional crewmember be assigned to the fire engine. Additional crew quarters has recently been provided at this site.

Sun City Palm Desert Station No. 81

Station No. 81 is a new fire station that opened in 2000. It is located at Washington Street and Avenue 38, north of Interstate-10, within the Palm Desert sphere-of-influence. The station is not part of the Cove Communities contract, but it generally serves north Palm Desert and the Sun City and north Washington Street areas. Equipment includes one engine, which is staffed by 2 people per day. The County plans to upgrade staffing levels, by adding one additional crew member at the station. The station does not yet have a volunteer program.

Bermuda Dunes Station No. 31

Station No. 31 is located in the within the Palm Desert sphere-of-influence, at Avenue 42 and Starlight Lane in Bermuda Dunes. It is staffed by 15 volunteers, and includes one engine and one squad vehicle. This station generally serves Bermuda Dunes and north La Quinta.

Thousand Palms Station No. 35

Station No. 35 is located at 72-695 La Canada Way in Thousand Palms. The station is equipped with one fire engine and one squad, which are staffed by 2 full-time personnel and 6 volunteers. In July 2001, Riverside County plans to add an additional full-time firefighter to the staff. The station serves Thousand Palms, as well as northern Rancho Mirage and Palm Desert. A new station is planned in Thousand Palms to replace the current facility, although the exact location has not yet been determined.

Sky Valley Station No. 56

Station No. 56 is located at 72-985 Dillon Road, approximately seven miles north of the City of Palm Desert. The station has one Type-1 fire engine and is staffed by 2 firefighters per day. There are no volunteers based out of the station at this time. The station primarily serves the Sky Valley area, but also responds to calls in North Palm Springs, Desert Hot Springs, Indio Hills and Thousand Palms.

Rancho Mirage Station 50

The Rancho Mirage Station No. 50, located on Highway 111 at Thunderbird Cove and is equipped with one 1,250 gallon per minute (gpm) pumper truck staffed by paid personnel, and one 85 foot hook and ladder truck operated by volunteers. The station also houses one paramedic unit staffed by paid personnel, and one squad staffed by volunteers. This station is located approximately two miles from the Palm Desert city limits.

Rancho Mirage Station No. 69

Rancho Mirage Station No. 69 is located on Gerald Ford Drive west of Bob Hope Drive, approximately 1.25 miles west of the city limits. This station is equipped with one pumper engine and a staff of three on duty at all times, and one paramedic unit staffed with two paramedics at all times.

Indian Wells Station No. 55

Indian Wells Station No. 55 is located on Eldorado Drive, just north of State Highway 111, and less than one mile from the Palm Desert city limits. This station is equipped with one 50' telesquirt engine staff with three personnel at all times. A paramedic unit is also stationed here and is staffed by two paramedics at all times.

Proposed Fire Stations

The City has begun setting aside funds for a new fire station to be constructed in the vicinity of Cook Street and Interstate-10. The station will provide additional fire protection coverage to development in this vicinity, including the future Coachella Valley Campus of California State University, San Bernardino (CSUSB). It is anticipated that the station would be constructed within the next five years, however the actual construction schedule will depend upon future levels of development.

Other Fire Protection Services

In addition to the fire and emergency medical response services described above, the City Fire Department also provides a wide range of public education activities and programs.

These include the mini-muster program directed at 3rd graders, career days, student government days, the comprehensive and intensive explorer program for young adults 16 to 20 year, fire safety tours of stations and equipment, disaster preparedness for gated communities, and accident reconstruction.

One of the most important services provided by the Fire Department is that of the Fire Marshal, who is responsible for providing project review services for the City. The Fire Marshal receives copies of development proposals and reviews them for adequacy of access, building siting and internal circulation for fire and other emergency vehicles, the need for sprinklers and minimum fire flows from hydrants, and other design issues associated with fire protection. The Fire Marshal also coordinates department fire inspectors, which inspect each commercial building in the City at least once each year. Inspectors also perform follow up inspections to assure code corrections.

The Fire Marshal and inspection staff are provided office space at Station 50 in Rancho Mirage and serve the three contract cities. Given the level of inspection and assurance of adequate code regulation, additional staffing will be needed to meet current levels of development and continuing growth within the service area. The City is planning to make provisions to provide for future space needs for this division of the department.

FUTURE DIRECTIONS

The availability of staff and equipment, the distribution of existing land uses, and anticipated development patterns directly impact the City's ability to provide adequate police and fire protection. Development that is distant from the City's police and fire stations may experience longer response times. This is a concern that must be considered in land use and circulation/traffic planning, as must the provision of water for fire flows, and emergency preparedness planning.

As the City continues to grow, so will the need for expanded police and fire protection facilities and personnel. It is difficult to estimate when additional public safety resources will be necessary, as the timing will depend upon future levels of growth and the types of development constructed. The City will need to closely monitor new development trends to assure the community is provided with adequate police and fire protection.

GOALS, POLICIES AND PROGRAMS

Goal

The provision of efficient, high quality police and fire protection for all types of development, and socio-economic segments of the community.

Policy 1

The City shall strictly enforce fire standards and regulations in the course of reviewing development and building plans and conducting building inspections.

Program 1.A

Coordinate with the Coachella Valley Water District to assure sufficient water supplies and pressures are available to provide adequate fire flows for all existing and proposed development.

Responsible Agency: Building and Safety Department, Community Development Department, Fire Department, Coachella Valley Water District

Schedule: Ongoing

Program 1.B

Development proposals shall be transmitted to the Police Department and the City Fire Marshal, and input shall be incorporated into project design or conditions of approval, as appropriate.

Responsible Agency: Building and Safety Department, Community Development Department, Police Department, Fire Department

Schedule: Ongoing

Program 1.C

Commercial, industrial and institutional buildings, and multi-family developments shall be periodically inspected by the Fire Department to assure compliance with applicable fire codes and to educate building and development managers on fire safety issues.

Responsible Agency: Building and Safety Department, Fire Department

Schedule: Ongoing

Policy 2

All proposals for new or substantially remodeled developments shall be reviewed for their potential demand for and impacts on City safety and the provision of police and fire protection services.

Program 2.A

Consult and coordinate long-term planning with the Fire and Police Departments regarding the optimal location of future fire and police stations, and assure that adequate staffing levels are provided to meet the demands of new development in the City.

Responsible Agency: Community Development Department, Fire Department, Police Department, Cities, County

Schedule: Ongoing

Program 2.B

The City shall continue to monitor development levels in the vicinity of Cook Street and Interstate-10 to evaluate the need for and feasibility of constructing a new fire station in this area.

Responsible Agency: Community Development Department, Fire Department

Schedule: Immediate, Continuous

Program 2.C

The City shall routinely evaluate and modify its structural fire assessments, as necessary, to assure that these funds are sufficient to cover annual operating costs.

Responsible Agency: Community Development Department, City Finance Department, Fire Department

Schedule: Annually

Policy 3

The City shall strive to maintain a police staffing ratio of at least 1.5 sworn officers per 1,000 residents.

Policy 4

The City shall strive to maintain Fire Department staffing and other appropriate measures of community fire protection to maintain an ISO Class 3 insurance rating.

Policy 5

Emergency, police, fire and paramedic vehicles shall be provided unencumbered access to all new development to the satisfaction of the City Fire Marshal, with a planning objective of maintaining a five minute response time over 95 percent of all priority one emergencies.

Policy 6

New and substantially remodeled development shall incorporate crime prevention design techniques, such as the use of "defensible space," high security hardware, optimal site planning and building orientation, and other design approaches to enhance security.

Policy 7

The City Police Department shall monitor the status of gang activity in the community and shall, as appropriate, develop and/or implement gang intervention and education program.

Policy 8

The City, County Department of Environmental Health and other appropriate agencies shall regulate the use and storage of potentially hazardous materials.

Program 8.A

The general location and siting of facilities which involve the use and/or storage of hazardous, highly flammable or explosive materials shall be thoroughly reviewed by City public safety specialists, and shall be conducted in such a manner that assures the highest level of safety in strict conformance with the Uniform Fire Code and other applicable codes and regulations.

Responsible Agency: Community Development Department, Building and Safety Department, Fire Department, Riverside County Environmental Health Department

Schedule: Immediate, Continuous

Policy 9

The City shall continue to promote and support community-based crime prevention programs as an important augmentation to the provision of professional police and fire protection services.

Program 9.A

Evaluate the feasibility of developing and implementing a Citizens-on-Patrol Program.

Responsible Agency: City Council, Police Department

Schedule: 2003-04

Program 9.B

Continue to encourage and support Neighborhood Watch, School Resource Officer Program, the Gang Task Force, and other community-based policing programs.

Responsible Agency: Police Department

Schedule: Ongoing

Policy 10

The City shall continue to support and encourage participation in the Police Department Explorer program, as an effective means of introducing youth to the importance and benefits of local law enforcement

Policy 11

Special on-site fire protection measures may be required on well vegetated, hilly areas with slopes of 10 percent or greater, with possible access problems, and/or a lack of sufficient water and/or water pressure. Such measures shall be specified during project review.

Policy 12

The City shall periodically review the level, quality, innovation and cost-effectiveness of police and fire protection services, including contract services, and shall remain flexible when considering the most effective means of providing these services to the community.

Policy 13

The City shall continue to monitor need and to explore drug education and abuse interdiction programs, which optimize the use of public and private providers of counseling and treatment programs.

Program 13.A

The City shall periodically review community issues associated with drug use and abuse, and, as appropriate, shall coordinate and cooperate with service providers to review needs and explore means of delivering effective drug-related counseling and treatment programs.

Responsible Agency: Community Services Department, School Districts, California Department of Health Services, Riverside County Health and City Police Departments, Betty Ford Center, and other public and private providers.

Schedule: Ongoing; Report Annually to Council

Policy 14

The City Police and Fire Departments shall closely coordinate and cooperate with the City and County emergency preparedness teams and shall assure the most effective disaster response practical.

SCHOOLS AND LIBRARIES ELEMENT

PURPOSE

City residents of all ages deserve the opportunity to gain a basic education and to expand their intellectual, social and career horizons through quality educational and cultural resources. Schools and libraries are also important venues for community social and cultural events, and play a role in enhancing community cohesiveness. The purpose of this Element is to describe the school and library systems and facilities in the City of Palm Desert, its sphere-of-influence and the surrounding planning area. The Element also sets forth goals, policies and programs that encourage decision-makers to provide support to these facilities and ensure that they are easily accessible to the public.

BACKGROUND

Since the advent of civilization, schools and libraries have represented the highmark, focus and pivot point for cultural, scientific and social advancement. At the local level, schools and libraries are essential parts of the community fabric, having connections and relationships with a wide range of other community components. Convenience and safe access to the City's school and library facilities depends upon where the facilities are located, the surrounding and community-wide land use pattern, the efficiency and safety of its roadway system, and the availability of public transit, and sidewalks and bicycle paths. In this regard, the Schools and Libraries Element is directly related to the Land Use and Circulation Elements.

Many school facilities are important recreation and open space assets and in this regard are related to both the Parks and Recreation Element and the Open Space and Conservation Element. To the extent schools and libraries are sensitive to noise, these facilities are an important consideration of the Noise Element. Schools and libraries are also the seats of arts and culture in the community and are thereby associated with this Element. Finally, the reputation of the community's schools and libraries affect the desirability of the community as a place to live, work and establish a business, thereby making them directed related to the Economic Development Element.

California Government Code Section 65302(a) requires that the General Plan assess the location and general distribution of educational facilities in the planning area, and that it determine the adequacy of these facilities. Continued residential development, a larger permanent population, and increasing numbers of families with school-age children can be expected to increase pressures on local school districts, which are required by law to accommodate students in school facilities.

The California Legislature approved AB 2926 in 1986 authorizing school districts to charge development fees to fund the construction and reconstruction of school facilities. Limits on the maximum fee that can be collected as set forth in Government Code Section 65995. Also applicable is Government Code Section 53080, which constrains the issuance of development permits until proof of payment of the applicable has been provided.

PUBLIC SCHOOLS

Public education services and facilities are provided to the General Plan planning area by two school districts: Desert Sands Unified School District (DSUSD) and Palm Springs Unified School District (PSUSD). DSUSD serves most of the developed portion of the planning area, including lands south of Frank Sinatra Drive in the lower planning area, and east of Washington Street in the upper planning area. The PSUSD district includes the remainder of the planning area, including northwestern Palm Desert and the Thousand Palms and Sky Valley communities.

Desert Sands Unified School District

DSUSD operates four elementary schools, one middle school, and one high school within the planning area. A description of each school is provided below.

Abraham Lincoln Elementary

Abraham Lincoln Elementary School is on a 10 acre site located at 74-100 Rutledge Way and extends north to Magnesia Falls Drive. This school serves students in kindergarten through fifth grades, and can accommodate a total of 646 students, with site capacity of 938 students. Enrollment for the 2002-2003 school year was 764 students and relies on portable classrooms to meet current student load. Needs identified in the District's master plan include expanded library space, and additional permanent classrooms are also proposed. The school is immediately adjacent to Palm Desert Middle School (refer to Palm Desert Middle School, below, for information about shared facilities).

George Washington Charter Elementary

The George Washington Charter Elementary School includes kindergarten through fifth grades, and is located on a 6± acres at 45-768 Portola Avenue. This is one of the oldest schools in the District. As a charter school, Washington is financially independent of the District and receives funding directly from the state. The school also has its own school board made up of parents whose children attend the school.

Reduced class-size enrollment is a priority issue at the school and has yielded higher student performance and test scores. The school site can accommodate 704 students. Enrollment in the 2002-2003 school year was 703 students. Needs identified in the District's master plan include expanded library and multi-purpose space and facilities, as well as expanded electrical service.

Country Club Drive Elementary

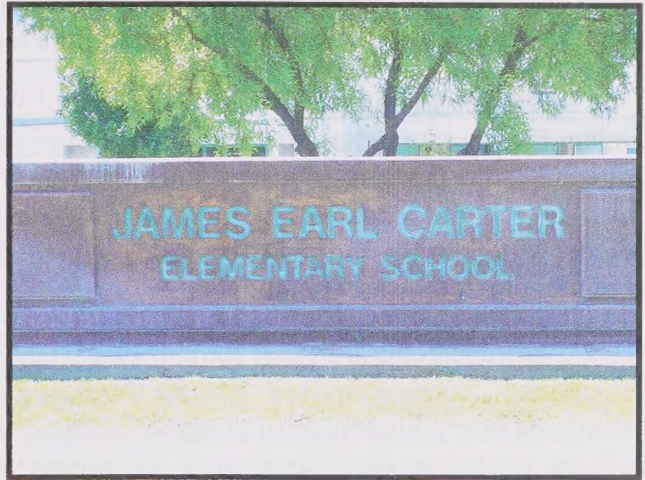
Un-named at this writing (2004), the school district is building a 64,000 square foot K-5 elementary school for 750 students north of Country Club Drive and west of Washington Street on a 12 acre site. This school will also be located adjacent and have access to a planned City park.

Gerald Ford Elementary

Gerald Ford Elementary School is located on a 11-acre site at 42-210 Warner Trail, at the southeast corner of Warner Trail and Fred Waring Drive in a newly incorporated area of the City of Indian Wells. The school includes kindergarten through fifth grades and is situated on an 11-acre site. The school can accommodate a total of 779 students, although school enrollment in the 2002-2003 school year reached 660 students. With the completion of the Dune Palms Elementary School to the east, the District has moved approximately 400 students from this school and reallocated students at other schools to Gerald Ford. Needs identified in the District's master plan include outdoor shade structures and expanded electrical service.

James Earl Carter Elementary

Carter Elementary School is located on a 10-acre site at 74-251 Hovley Lane and serves students in kindergarten through fifth grades. The school was constructed in 1996 and is situated on a 10-acre site. It can accommodate approximately 621 students. Enrollment during the 2002-2003 school year was 652 students. This school has a current (1998) capacity of 609 students, and is planned for a maximum core capacity (125%) of 938 students. Needs identified in the District's master plan include additional shade structures, exterior lighting, library computers and shelving, expanded multi-purpose space and expanded electrical service. Traffic conditions on-site and on Hovley Lane have been degraded by high parent drop-off and pick-up.



Palm Desert Middle School

Constructed in 1977, Palm Desert Middle School is located on a 10.7± acre site at 74-200 Rutledge Way, next to the Abraham Lincoln Elementary School. The school can accommodate a total of 1,245 students from sixth through eighth grades. Enrollment for the year 2002-2003 was 1,214 students. Four portable classrooms were added to this campus in 1999, indicating the school's continued reliance on portable classroom space.

The District master plan identifies substantial needs of this school, including a new multi-purpose gym and PE lockers, an auditorium, and upgraded electrical systems. Additional permanent classrooms are also needed. An enhanced parent drop-off and parking area on Magnesia Falls Drive is being proposed by the City as part of its Magnesia Falls Drive extension project.

Land east of and immediately adjacent to the school is owned by DSUSD, but is currently being leased by the City for use as a community-scale park. DSUSD has indicated that, given recent growth in student enrollment at Palm Desert Middle and the adjacent Lincoln Elementary School, the District may need to reclaim its use of the land for expanded school facilities. The District and City are currently negotiating about the future use of this site.

Palm Desert High School

Palm Desert High School was constructed in 1987 and is located on a 43± acre site at 43-570 Phyllis Jackson Lane and extends east to Cook Street. The school has a total capacity of 2,115 students, and its 2002-2003 school year enrollment was 1,760. The campus currently relies upon several portable classrooms to meet student loads. The campus needs identified in the District's master plan include combining two administrative offices into one office facility. The City and District have formed a committee to address campus issues, including street access.

Palm Springs Unified School District

The Palm Springs Unified School District (PSUSD) serves northwestern Palm Desert and the Thousand Palms and Sky Valley communities. It currently (2001) operates one elementary school in Thousand Palms, and none within the Palm Desert city limits.

Della S. Lindley Elementary

Lindley Elementary School is the only school in the planning area operated by the Palm Springs Unified School District. It serves students from Thousand Palms, Palm Desert, and Cathedral City. The school is located on a 17.90-acre site at 31-495 Robert Road in Thousand Palms and includes kindergarten through fifth grades. Its total capacity is approximately 790 students, and enrollment in 2003 was 717 students.

PSUSD constructed additional two-story portable classrooms at the school, which added six classrooms. Other proposed Master Plan improvements include remodeling 3 standard classrooms into 2 kindergarten classrooms, removing 3 portable classrooms, improving kitchen facilities, upgrading facilities to meet Americans with Disabilities Act (ADA) requirements, and installing new playground equipment. Installation of technology cabling to all classrooms was completed in 2002.

Overcrowding and Future School Construction

Both the Desert Sands and Palm Springs Unified School Districts are experiencing overcrowding in some of their schools. In addition to permanent classroom facilities, both districts use portable classroom buildings on some campuses. The districts analyze a wide range of historical, actual, and projected demographic and housing data to determine the demand for new facilities, as well as their optimal locations and timelines for development.

Neither district plans to construct a new school in the planning area in the immediate future. However, DSUSD has indicated that the demand for elementary and middle schools is increasing, and within three to five years the District will need to construct new schools in the Palm Desert area. The City has purchased a parcel of land on the north side of Country Club Drive, east of Tamarisk Row, which may be partially utilized as a school site in the future.

The City and DSUSD are currently (2001) discussing the possibility of entering into a joint-use agreement, whereby the City would develop a portion of the site as a community-scale park, and DSUSD would develop a portion as an elementary school. The school and park would share the use of recreational and parking facilities.

The District has indicated that the school may be constructed within three to five years. PSUSD has also indicated that it may construct a new elementary school to serve the Thousand Palms/Rancho Mirage area in the future; no specific site or construction date has been selected. It currently has no plans to construct a new school within the Palm Desert city limits.

When the State of California reduced funding for public schools, it passed legislation effective January 1, 1987 to permit school districts to levy a per square foot fee for residential, commercial and industrial development. These fees must be paid by developers directly to the school district prior to the issuance of building permits. The fees are used to assist in the construction or reconstruction of school facilities. In 2003, the fee was \$2.14 per square foot of residential development, and \$0.34 per square foot of commercial or industrial development.

PRIVATE SCHOOLS

Several private schools also serve the City of Palm Desert and the surrounding area and include the following:

Desert Adventist Academy

The Desert Adventist Academy is located at 74-200 Country Club Drive and includes kindergarten through eighth grades. In the 2002-2003 school year, 98 students were enrolled.

Sacred Heart Catholic School

Located at 43-775 Deep Canyon Drive, the Sacred Heart Catholic School includes kindergarten through eighth grades. The school has a maximum capacity of about 310. A Catholic high school is also being planned near Cook Street north of Interstate-10.

St. Margaret's Episcopal School

St. Margaret's Episcopal School is located at 47-535 Highway 74. The school includes elementary and middle school students. The elementary school includes kindergarten through fifth grades and currently enrolls approximately 115 students. The middle school includes 22 sixth grade students. In Fall 2001, a seventh grade was added. An eighth grade was added in Fall 2002.

Montessori School of the Valley

The Montessori School of the Valley has two campuses in Palm Desert. At 43-250 Warner Trail, the school serves pre-school (minimum age of 2) through kindergarten. Students from first grade through 5th grades attend the campus located at 77-800 California Drive. The combined campuses currently enroll about 80 students, but can accommodate a total of 100.

Montessori School of the Desert

The Montessori School of the Desert, located at 73-925 Fred Waring Drive, is a pre-school serving children 18 months to 6 years of age. Its current student enrollment is 60 students, but it can accommodate a maximum of 100.

HIGHER EDUCATION

Four colleges and universities, which offer a wide variety of vocational and advanced education opportunities, are located within the City of Palm Desert, including the following:

College of the Desert

The College of the Desert (COD) is a California State Community College located on a 160-acre campus at 43-500 Monterey Avenue in Palm Desert. Off-site classes are offered at COD's Eastern Valley Center in Indio and the Western Valley Center in Palm Springs and Desert Hot Springs. Established in 1958, COD offers associate degrees, transferable degrees and certificate programs in more than 70 disciplines, including vocational and technical programs of study.

The COD student body is a diverse population comprised of recent high school graduates, working adults and retirees. During the Spring 2003 semester, the student body included 9,200 students. Of these, approximately 26% were full-time students, 58% were part-time students, and 16% were non-credit students. Daytime, nighttime and on-line courses are offered and provide flexibility and convenience for working students.

COD has incorporated state-of-the-art technology throughout its campus. The Smart Classroom Project, implemented in 1998-99, provided enhanced electrical power, fiberoptics and communications cable wirings to certain classrooms to facilitate modern technology used in business, industry and education. Environmental design, economic development, and Internet classes were added to the curriculum to meet the growing needs of the community.



California State University-San Bernardino, Palm Desert Campus

The Coachella Valley Campus (CVC) of California State University-San Bernardino (CSUSB) opened in fall 1986 and offers a wide range of undergraduate and graduate programs. Course instruction often utilizes electronic support and distance learning, and approximately 20% of all course offerings are connected to CSUSB via compressed video distance learning systems. In fall 1999, approximately 800 students were enrolled at CVC.



CVC currently (2003) offers classes in the School of Education Program located at 43-500 Monterey Avenue on the College of the Desert campus. However, the City of Palm Desert has dedicated approximately 200 acres at the northeast corner of Frank Sinatra

Drive and Cook Street for the construction of a new CVC campus. Construction of the first campus buildings and facilities has been completed, and additional construction underway. Enrollment at the new campus for the Spring 2003 Quarter was 1,000.

The campus will offer a variety of undergraduate and graduate degree programs across six different disciplines, including the following: School of Education; School of Social and behavioral Sciences; School of Natural Sciences; School of Engineering; School of Business; and the School of Humanities and University Studies. The new campus will also provide a full range of related services and facilities, including extended education and distance learning programs, the Coachella Valley Permanent Center, sports arena, aquatic center, baseball and other outdoor sports facilities, and administrative services and facilities.

The California State University CVC is expected to support a peak student population of approximately 25,000 with up to 15,625 students expected to be on campus at any given time. Approximately 5,392 students are expected to be in attendance by 2005, with full student attendance expected by 2020. The current CVC Master Plan also calls for the eventual development of 12,860 parking spaces and up to 1,200 dormitory rooms for on-campus student housing. In 2001, the University took title to the first 50± acres for the development of the campus.

University of California-Riverside Extension Program

The University of California-Riverside (UCR) Extension Program offers a variety of professional and certificate classes throughout southern California, including at the College of the Desert Campus on Monterey Avenue in Palm Desert. The extension program is largely directed at working adults seeking professional enrichment, and most courses are offered in the evenings and on weekends. In Spring 2003, several networking and computing technology courses were offered at the Palm Desert center.

The Richard J. Heckman International Center for Entrepreneurial Management has broken ground at the southeast corner of Gerald Ford Drive and Cook Street. This educational center is part of the Gary Anderson Graduate Business School at the University of California at Riverside and will offer upper level courses in business management, entrepreneurship, finance and related business studies. This campus will be adjacent to the new Coachella Valley Campus of the California State University-San Bernardino.

Chapman University

The Coachella Valley campus of Chapman University was established in 1979 and is located at 42-600 Cook Street in Palm Desert. The curriculum focuses on the adult learner and offers a variety of undergraduate and graduate degrees, teaching credentials, and certificate and extended education programs.

LIBRARIES

Palm Desert Public Library

The Palm Desert Public Library is a branch of the Riverside County Library System and is located at 73-300 Fred Waring Drive. The library encompasses approximately 20,000 square feet of a 40,000 square foot facility, which it shares with the College of the Desert Library. Although their books and resources are physically separated, the two libraries have a reciprocity agreement and also share an online research database and checkout desk.

The Palm Desert Public Library contains approximately 75,000 volumes and is staffed by five full-time employees, 15 part-time employees, and approximately 35 volunteers. Hours of operation are as follows: Monday through Wednesday from 10 a.m. to 8 p.m.; Thursday through Saturday from 10 a.m. to 5 p.m.; and Sunday from 1 p.m. to 5 p.m. A special events coordinator arranges musical events and guest speaker lectures and presentations, which are also held at the library. The library operates a youth story-time program and adult computer classes, and supports the County-wide Literacy Program, which is managed from the Indio Public Library.



The Palm Desert Public Library is a multi-agency facility, which is part of the Riverside County Library System. Each year, approximately 2.7% of the City's 1% property tax revenue is paid to Riverside County for basic library operations and services. The City also allocates General Fund revenues to pay for additional library services, which are above and beyond those provided under the County contract. Specifically, these funds cover expenses for three additional hours of operation on Thursdays, a volunteer program and coordinator, special events programs, and a special events coordinator. In fiscal year 2000-01, the City budgeted \$194,150 for these additional services.

College of the Desert Library

The College of the Desert (COD) opened its on-campus library concurrent with the aforementioned community library in January 1996. As described above, the library shares a building and reciprocity agreement with the Palm Desert Public Library. The COD Library is open Monday through Thursday from 8 a.m. to 9 p.m., and Friday from 8 a.m. to 5 p.m. All library services are available to COD students and the general public. It contains more than 50,000 volumes, including an extensive collection on deserts of the world and works written by and about Sir Winston Churchill. Other features include a computer lab, local history room, children's story room, community meeting room and seminar rooms.

The City entered into a joint-use agreement with College of the Desert and Riverside County to fund the initial construction of the shared COD/City library building, and redevelopment funds were used to facilitate the City's share of building construction costs. The City is also responsible for funding a portion of ongoing maintenance and structural improvements, which recently included improvements to the central air conditioning system.

Thousand Palms Public Library

The Thousand Palms Branch of the Riverside County Library System is located at 72-715 La Canada Way. The library is currently housed in a rented room at the Chamber of Commerce building in Thousand Palms, and first opened in the mid-1990s, when bookmobile service to the Thousand Palms area was discontinued.

The Thousand Palms Library is staffed by one full-time branch manager, two part-time employees, and eight volunteers. Hours of operation are as follows: Monday and Tuesday from 2 p.m. to 6 p.m.; Wednesday from 10 a.m. to 6 p.m.; and Saturday from 10 a.m. to 2 p.m. Special community programs include children's story-time, crafts and reading clubs. The County and residents of Thousand Palms are raising funds and applying for grants with hope of constructing a permanent library facility in about 2005 or 2006. The new facility would be located on a donated parcel of land on Robert Road.

FUTURE DIRECTIONS

Schools and libraries are important indicators of a city's social and cultural health and quality of life. The quality of community library facilities is often an important issue for those considering residing in the city. Schools and libraries are land use sensitive, and their location requires careful consideration of public safety, accessibility, and impacts from noise and traffic.

As the City continues to develop, the demand for schools and libraries will grow, and these facilities will play an increasingly important role in the community. While consultation with the City and local jurisdictions is required, most school-related decisions rest with the school districts, with building, planning and design approved by the State Architect's Office. Nonetheless, the City can advise, assist and coordinate with the school districts and state agencies in the planning and provision of educational facilities to assure that quality services are provided to the community.

The City will continue to facilitate the collection of school impact fees and assist the districts in related land use decisions. However, the principle responsibility for planning, financing and developing future school facilities and expanded services will continue to lie with the districts. The General Plan establishes policies and programs designed to protect existing and future schools and libraries from excessive noise and traffic, and to help ensure accessibility and compatibility with surrounding land uses.

GOALS, POLICIES AND PROGRAMS

Goal 1

Educational and library facilities that provide City residents with a wide range of high quality services, which are physically and financially accessible to all segments of the population.

Goal 2

School and library facilities that serve as important venues for community social and cultural events, and that play an important role in enhancing community cohesiveness

Policy 1

The City shall cooperate and coordinate with the Desert Sands and Palm Springs Unified School Districts and state agencies in identifying potential school sites needed to meet future demand, as well as the planning, site acquisition and development of educational facilities in the City. The siting of future schools in areas accessible to existing and future residential neighborhoods shall be encouraged.

Program 1.A

The City shall review and advise the Desert Sands and Palm Springs Unified School Districts on their master plans, development proposals and environmental documentation, and shall otherwise advise, coordinate and cooperate with the Districts to assure the provision of safe, conveniently located and effective educational facilities.

Responsible Agency: Community Development Department, Desert Sands Unified School District, Palm Springs Unified School District

Schedule: Ongoing

Program 1.B

The City shall review and advise the College of the Desert, Cal-State University, University of California on new or updated master plans, development proposals and environmental documentation, and shall otherwise advise, coordinate and cooperate with these institutions to assure the provision of safe, conveniently located and effective educational facilities.

Responsible Agency: Community Development Department, College of the Desert, California State University, University of California

Schedule: Ongoing

Policy 2

The City shall cooperate in the process of securing school impact fees from developers, in accordance with state law.

Policy 3

To the greatest extent practical, the City shall protect existing and future school and library sites from excessive noise and adverse traffic conditions.

Program 3.A

To the greatest extent practical, the Land Use Element and Map of the General Plan shall be used to ensure compatible land uses surrounding school and library facilities.

Responsible Agency: Community Development Department, City Council

Schedule: Ongoing

Program 3.B

Encourage and/or require the use of design and development solutions that mitigate potential traffic and noise impacts on schools and libraries, including but not limited to fencing, turnouts and acoustical barriers.

Responsible Agency: Community Development Department, School Districts

Schedule: Ongoing

Policy 4

As appropriate, the City shall pursue agreements with the school district(s) to assist in the purchase, lease or joint use of land and facilities for school and recreational purposes, and to provide the neighboring community with access to recreational facilities and open space during non-school hours.

Policy 5

The City shall ensure that adequate library space, services, books and other resources are available to satisfy the literary, educational, social and cultural needs of its residents.

Policy 6

Recognizing the importance of the library system for educational and cultural development within the community, the City shall explore the need for and feasibility of expanded library facilities and resources, including the potential and appropriateness of establishing satellite libraries.

Program 6.A

The City shall establish a committee comprised of education and library professionals, elected and appointed officials and City staff, and shall explore the possibility and appropriateness of providing additional library facilities, including possible satellite libraries.

Responsible Party: Community Development Department, City Council, City/County Library System

Schedule: 2003-04

Policy 7

The City shall encourage and support local higher education institutions that enhance general, career and vocational skills, employment opportunities and personal growth of residents of the community.

Program 7.A

Continue to encourage and work closely with COD, Chapman University, CSUSB, UCR and other institutions to offer a wide variety of quality undergraduate, graduate, certificate and vocational programs in the Coachella Valley, including those in areas of health care, tourism, land development, and design and fine arts.

Responsible Agency: Community Development Department, Planning Commission, City Council, COD, Chapman University, CSUSB, UCR

Schedule: Ongoing

Policy 8

The City shall continue to explore and advocate any reasonable means by which the entire City may be placed within a single school district.

Program 8.A

As part of its on-going effort to place the entire City within the boundaries of a single school district, the City shall coordinate with the two school districts and other interested parties to achieve this end.

Responsible Agency: Community Development Department, PSUSD, DSUSD

Schedule: Ongoing

Policy 9

The City shall pro-actively work with the school districts serving the City to improve the level and quality of education whenever possible.

Policy 10

The City shall cooperate with the various school districts serving the community to establish a "community education committee" to facilitate coordination and cooperation between these essential service providers.

Program 10.A

The City shall initiate contact with the various school districts serving the community, and will facilitate the establishment of a community education committee, which will develop a mission statement and process of committee activities. The committee's essential goal shall be to enhance the provision of quality education to all students in the City.

Responsible Agency: Community Development Department, PSUSD, DSUSD, COD, CSUSB, UCR, Chapman College

Schedule: 2003-04, Ongoing

Policy 11

The City Library Committee shall continue to coordinate with College of the Desert, and shall explore additional cooperative efforts with other libraries, including those associated with CSUSB and UCR.

Policy 12

The City shall pro-actively work with the school districts serving the City to improve the level and quality of education whenever possible.

Policy 13

The City shall cooperate with the various school districts serving the community to establish a "community education committee" to facilitate coordination and cooperation between these essential service providers.

Policy 14

The City shall coordinate and cooperate with the College of the Desert and other institutions with which it may share library facilities to establish similar and uniform hours and services that best address the needs of the public.

HEALTH SERVICES ELEMENT

PURPOSE

The Health Services Element is designed to address the significance of health care accessibility and affordability in the life of a community. Health care services and providers must be both physically and economically accessible to everyone in the City. Also, in the event of emergency, residents must be able to access such services and providers directly or have access to transportation to these services. In addition, the knowledge that such services are available and of good quality adds greatly to residents' sense of well-being and satisfaction with their community.

This Element will outline health care that serves various sectors of the population, as well as the types of facilities that serve Palm Desert. Discussions will include major hospitals, skilled nursing facilities, home health care and hospice providers, immediate care clinics, and the range of specialized services available within the community. In addition, attention will be given to initiatives that the city or related agencies have begun or are in the process of developing to increase accessibility of health care to the entire population.

BACKGROUND

This Element relates to and shall be coordinated with the Emergency Preparedness Element, to ensure that medical services are coordinated and accessible during times of crisis. It is also directly related to Land Use since it involves consideration of establishment of additional medical facilities in the city and the larger planning area, and sensitivity to the accessibility of such resources to all segments of the population. Health Services also relates to the Circulation Element, which addresses issues of traffic patterns and accessibility, and Fire and Police Protection with regard to emergency services and transportation.

Palm Desert is a thriving residential and business community that has experienced consistent annual population growth over the last 10 years. Health services in this community must meet the needs of a population comprised of a wide range of socio-economic levels and ages. Planning for such services must also take into account the numerous commercial, educational and industrial enterprises located throughout the City to which persons from all over the Valley travel on a daily basis. Because of its status as a resort destination, the City should consider ways to maintain health care availability between its seasonal visitors and the local health care community. In addition, the large areas of open space and uninhabited land, which comprise the northern and southern planning area, may need to be considered in a different fashion than the more populated and commercialized City limits.

Hospitals Serving Palm Desert

Palm Desert is served by all three of the valley's major hospitals. Eisenhower Medical Center's 100-acre campus, located in Rancho Mirage at the corner of Bob Hope Drive and Country Club Drive, is in closest proximity. The Center is comprised of a 261-bed, general acute care hospital, the Barbara Sinatra Children's Center for treatment of childhood emotional and psychological problems, the Betty Ford Center for persons with alcohol and drug dependency, and the Annenberg Center for Health Sciences, a conference and communications facility. The Lucy Curci Cancer Center at Eisenhower Medical Center due to open in summer 2003, will provide several disciplines of cancer management under one roof, offering a comprehensive range of oncological services.

Desert Regional Medical Center in Palm Springs is a 388-bed acute care facility and the only designated trauma center serving the valley. The Center of Excellence is a comprehensive cancer care center located on the Desert Regional campus and includes a Comprehensive Breast Center. John F. Kennedy Memorial Hospital, located in Indio, is a 130-bed community hospital that includes a 24-hour emergency room. Both Desert Regional and JFK are affiliates of the Tenet Health system.

Immediate Care Clinics

There are 5 immediate care clinics in the planning area.

Palm Desert Urgent Care is located at 73-345 Highway 111. It is staffed by two doctors, one of whom is always on-site during office hours. It is not affiliated with any of the area hospitals, however doctors have admittance privileges at both Eisenhower and John F. Kennedy. This clinic is Medicare certified.

Three doctors, two of whom are on-site during hours of operation, staff Desert Urgent Care at 74-990 Country Club Drive. The clinic accepts Medicare and Medi-Cal patients. One of its three physicians is available to provide services through the Healthy Families program. Healthy Families provides insurance coverage to children up to age 18. This clinic's corporate office in Indio also offers assistance with the Healthy Families application process.

MEA Health Care, located at 41800 Washington Street just outside the City limits in Bermuda Dunes, is staffed by one physician, one registered nurse, and one medical assistant. MEA accepts Medicare and Medi-Cal patients.

Kerrigan Medical Clinic is located at 42575 Washington Street in Palm Desert. It is staffed by three doctors, two nurse practitioners, and three physician's assistants. The Clinic is a family medical practice, and also provides urgent care services. It accepts Medicare and Healthy Families patients. The clinic's physicians have admittance privileges at Eisenhower Medical Center.

STAT Urgent Care, at 73211 Fred Waring Drive, Suite 101 in Palm Desert staffs one full-time physician, with two additional doctors on call. Other staff includes a Registered Nurse, a Medical Assistant, a Radiology Technician, and an Emergency Medical Technician. The clinic considers discounts on a patient-by-patient basis and accepts Medicare and Healthy Families patients.

Special Services

Healthy Cities

Healthy Cities is a City-funded program begun in 1988 in conjunction with the California Healthy Cities Project. The goal is to promote health and injury prevention. The program is administered by a Palm Desert staff person devoted to the program approximately 20 hours per month, and a committee comprised of Palm Desert residents, the program director, 2 council members and an additional staff member. Since 1988, projects have included a 2-year bicycle safety project, which promoted helmet use, development of bike lanes, and the health benefits of bike use. Other projects have included Walkabout Palm Desert to promote walking as exercise and to improve sidewalk placement standards, the Gatekeeper Program designed to protect senior citizens from various forms of abuse, and an initiative which resulted in an update of the City's Multi-Function Hazard Plan and increased awareness of emergency preparedness among City residents.

Currently the program has completed the first growing season of its Palm Desert Community Gardens project in partnership with Coachella Valley Community Gardens. The community garden is sited on San Pablo Avenue and is an effort to promote healthy eating as well as the fitness benefits derived from the activity of gardening. Participants are offered classes such as soil preparation in order to improve the garden's yield. This is a very popular, ongoing project.

Well Care Clinic

The John F. Kennedy Memorial Foundation opened a Well Care clinic in Palm Desert in early 2002. The 6,000 square foot freestanding building is located at 73555 San Gorgonio Way. It serves as the Foundation's new home and houses medical facilities, classrooms, and program operational space. Clinic services include obstetric care, pre-natal care and education, and pediatric care for children of all ages. Comprehensive pre-natal services will also include nutritional education. While programs such as WIC (see below) are income-qualified, most services will be open to anyone regardless of income.

One of the clinic's central initiatives is the Well-Baby program. It focuses on the first three years of the child's life by providing services which will not only nurture the child's healthy physical and emotional development, but will also empower parents. The program offers education and support through consultations with a child development specialist, both at the clinic and at home, well-baby doctor's visits, a parent information help line, and parenting education. The clinic's goal is to assist parents who may feel unprepared for the challenges of parenting by providing resources to ensure a positive, bonding experience with their child during the critical first three years of life. The clinic's innovative approach in caring for children's emotional and intellectual development as well as their physical health make it one of only 26 such clinics in the United States

There are currently no pediatric or educational pre-natal care programs in the central valley accepting Medi-Cal. However, according to the California Department of Health Services, there are 3,277 persons in the central valley enrolled in Medi-Cal, and over 2,000 of them live in Palm Desert. In addition, it is estimated that 18.7% of the children in the central Coachella Valley have no health insurance. Therefore, the Clinic will assist families of such children in the application process for public health care benefits, including Medi-Cal and Healthy Families. The clinic will also administer WIC (Women's, Infants and Children) supplemental food program for qualifying women and children.

The clinic is largely funded through the John F. Kennedy Memorial Foundation and currently has start-up and capital funds for its first two years of operation. Portions of the programs may be funded through Riverside County Child Abuse, Prevention, Intervention and Treatment funds and Proposition 10. Palm Desert City Council has authorized talks with the Foundation to consider the possibility that the City may assist with funding needed for completion of the building phase of the project.

Services to School Children

The City of Palm Desert is serviced by two school systems. Desert Sands Unified School District operates most of the schools within the planning area, while Palm Springs Unified School District operates one elementary school in the Thousand Palms area.

The Desert Health Care Foundation funds The Smile Factory in PSUSD elementary schools. Within the planning area, this program is available only to students of the Della S. Lindley Elementary School in Thousand Palms, which is part of the PSUSD. The Smile Factory is a mobile dental unit providing free dental screening to children from Kindergarten through 5th grades that qualify for the school lunch program, and free dental treatment for children in 2nd through 5th grades.

For DSUSD elementary students, the Rotary Club offers vouchers for emergency dental care. If a dental emergency occurs, the child's parents are contacted and given a list of participating doctors who will provide free emergency dental care. No income or insurance availability screening is required prior to the initial treatment. Doctors participating in this program often provide follow up care free of charge or on based on a sliding income scale. DSUSD has identified two physicians who will provide a 50% discount for vision and hearing treatment for students referred by a DSUSD school. For students whose family has no health insurance, doctors will often continue services on a sliding scale or via a payment plan. The Lions Club offers free eye exams and free eyeglasses to students with no access to insurance. Students whose families have access to health insurance are also eligible for these services in return for a donation.

The YMCA of the Desert operates 10 full-service day care locations that serve approximately 800 pre-school and school-aged children across the Coachella Valley. These centers offer free health screenings and some immunization services to children aged 2 through 5 who are enrolled in the day-care program. Loma Linda Medical Center staff provides on-site vision testing, and will provide eyeglasses free of charge to children in need of corrective lenses. John Tracy Hearing Center conducts free hearing screenings; children in need of further hearing treatment are then referred to physicians. Visiting Nurses Association operates clinics at the childcare locations and provides free physicals and updates immunizations.

Psychiatric and Mental Health Services and Facilities

The Barbara Sinatra Children's Center at Eisenhower Medical Center was founded in 1986 to offer individual and group therapy for abused children. Client services include an initial psychological assessment, with additional assessments and testing available, and individual and group therapy geared towards the child's specific needs. Therapeutic programs may include family therapy as well. The Center offers a self-esteem program for children through age eighteen which incorporates a variety of confidence building activities and classes. The Bobbo the Bear (Good Touch/Bad Touch) interactive community outreach serves as an abuse detection and prevention program to elementary aged children.

Addictions Treatment Facilities and Services

Although no residential or outpatient substance abuse facilities operate out of the planning area itself, residents have a number of treatment facilities within close proximity. The Betty Ford Center, located on the Eisenhower Medical Center campus in Rancho Mirage, is a full service drug and alcohol rehabilitation clinic with long and short-term inpatient and outpatient care options.

California Department of Health Services/Riverside County operates a substance abuse treatment center in Indio. Services include an outpatient drug-free program that includes counseling for adolescents through senior adults, both individuals and families, and support groups. This office also provides an outpatient perinatal program for mothers and expectant mothers with substance addictions. All residential substance abuse clients are referred to area residential facilities (see discussion of such facilities, below).

Inpatient substance abuse facilities in the Coachella Valley include The Ranch, which serves male clients, and Hacienda Valdez, which serves female clients. Both are located in Desert Hot Springs and have a capacity of from 32 to 46 patients. Soroptomist House of Hope in Desert Hot Springs has space for up to five patients (all women) and has a 90-day rehabilitation program.

Other facilities include Pine Ridge Ranch in Rancho Mirage, which offers outpatient substance abuse care, and Life's Journey, located in Palm Springs, which offers primary care (detoxification) as well as relapse prevention and is licensed for 30 beds.

The California Counsel on Problem Gambling in Palm Springs serves as a resource throughout the state. According to the Counsel's Executive Director, the Coachella Valley has the densest concentration of gambling establishments in the State, which may statistically increase the risk to valley residents of developing a gambling addiction.

Locally, Life's Journey provides addiction rehabilitation services to gambling addicted patients, and Michael's House will be able to provide such services shortly. The Counsel posts its telephone number at casinos and thus receives calls directly from affected persons; it also receives referrals from the clergy, social service agencies, and probation departments dealing with offenders whose crimes are related to this addiction. There are several GA meetings each week at locations throughout the desert, including Eisenhower Medical Center.

Overeater's Anonymous holds several meetings throughout the valley on a weekly basis. Three of these are held at locations in Palm Desert. Meetings provide group-based support and leadership rotates among members. Currently there are no local dedicated local facilities to treat compulsive overeating. However, Alano Clubs, comprised of meeting and hospitality rooms at which an addicted person may meet others for support at almost any time, are set aside throughout the valley. Meetings at Alano Clubs run several times each day. Alano Clubs are non-profit, drop in centers that receive donations from various sources. There are currently no O Anon chapters, for families of compulsive overeaters, within the valley. Al Anon, which primarily serves families of alcohol-addicted persons, may provide a parallel resource if the person has both a compulsive overeater and an alcohol-addicted relative.

Veteran's Services

Loma Linda Healthcare, under contract with the Veteran's Administration, provides primary care clinical services to all United States military veterans with an honorable discharge. The clinic is located at 41-865 Boardwalk in Palm Desert, near the intersection of Cook Street and Hovley Avenue. It provides routine services including laboratory testing, EKGs and biopsies. More specialized services are referred to the Loma Linda Medical Center. Veterans are charged a per visit co-payment amount based on income.

Senior Center

The Joslyn Cove Senior Center is located in Palm Desert at 73-750 Catalina Way. The Center provides free weekly blood pressure screenings, monthly hearing screenings, and monthly support groups for Parkinson's Disease and Post-Polio patients. Bi-annual health fairs feature a range of health screenings including cholesterol, bone density testing, and others. All such screenings are free and performed by registered nurses. The center also offers fitness classes such as meditation, Tai Chi, and Calisthenics. Through Health Insurance Counseling and Advocacy Program (HICAP), a non-profit advocacy group, the Center also offers periodic free counseling regarding insurance issues as well as lectures on insurance-related questions and issues.

Skilled Nursing Facilities

There are currently 3 skilled nursing facilities in Palm Desert, with an additional facility to be constructed. The currently existing facilities include:

The Carlotta Retirement & Care Center, located at 41-505 Carlotta Drive. Of Carlotta's 192 available openings, 59 qualify as skilled nursing. This facility is Medi-Cal and Medicare certified. It has no Alzheimer's dedicated units.

Manorcare Health Service at 74-350 Country Club Drive is a Medicare certified facility with 27 of its 178 beds dedicated to skilled nursing care, with an approximately 30 beds specifically for Alzheimer's patients. Manorcare is a secured Alzheimer's facility, designed to protect mobile Alzheimer's patients from leaving the property.

Monterey Palms at 44-610 Monterey Avenue has approximately 49 skilled nursing beds out of a total of 99. This facility accepts Medicare patients but not those enrolled in Medi-Cal. It has no Alzheimer's dedicated units.

Portofino, a new 60-acre facility currently under construction at the corner of Portola Avenue and Country Club Drive, will provide facilities for seniors ranging from freestanding luxury villas to assisted living, skilled nursing, sub-acute care, and secured units for patients suffering from dementia, including Alzheimer's. Construction on the proposed 175,000 square foot health center is set to begin in the next few years. Total number of units per category of care is to be determined. The facility will accept Medicare patients.

Additional Alzheimer's Disease Resources

The Coachella Valley Office of the Alzheimer's Association of Riverside/San Bernardino Counties is located at 73-710 Fred Waring Drive, a City-owned building. The Association holds weekly support groups at their offices. Meetings are free to Alzheimer's caregivers. Affiliated support groups meet throughout the valley at various facilities, including the Eisenhower 5 Star Club Day Adult Day Care (described below) and ManorCare Health Service.

The Association sponsors a toll-free help line for caregivers, and provides a pre-screening memory test at local health fairs and senior centers, including the Joslyn Cove Senior Center in Palm Desert, and by appointment at the Association's office. It publishes a quarterly newsletter and offer topical and action-oriented brochures to assist Alzheimer's caregivers and families of patients. It also sponsors the Safe Return program that provides memory-impaired adults with an identification bracelet and contact system to provide back up should the adult become lost. This program is available for a small fee.

The Eisenhower 5-Star Club is an adult day care center that offers services to adults suffering from diseases such as Alzheimer's, Parkinson's, depression, eye disease, or the effects of a stroke. A personalized care plan may include assistance with personal care and bathing, referrals to other community resources, support groups for families and caregivers, and daytime meals. The Club is accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and lists among its goals to be an "innovative research center for caregivers and participants." A membership fee is required, with some discounts and scholarships available.

Home Health and Hospice Care

Visiting Nurses Association of the Inland Counties is a non-profit health care provider and is Medicare and Medi-Cal certified. VNAIC also receives donations from the United Way to assist patients with financial need. Their Coachella Valley office is located on Cook Street in Palm Desert. They are staffed to provide a full range of services from home health aide through social services, various therapies and skilled nursing care. VNAIC is also a certified hospice care provider and can care for terminally ill patients in their homes or at an outside facility.

Core Home Health Care is located on Springfield Lane near Washington Street and Interstate 10. Core offers services ranging from housecleaning to specialized pediatrics care and including intravenous treatment, and physical and occupational therapies. Core serves many clients

referred by Desert Aids Project and SCAN (Senior Care Authorization Network). Core utilizes a sliding fee scale and may offer a lower-end fee to patients with financial need. This organization is Medi-Cal and Medicare certified. They are available to care for patients in home or at a facility.

Shelter from the Storm

Shelter from the Storm is for women and children fleeing domestic violence, and is the only 60-day shelter in the valley. While the location is undisclosed to protect residents, there are five valley outreach shelters, one of which is located in Palm Desert. The Edra Blixseth Community Counseling Center/Business Center in Palm Desert provides clinical management services to residents who have completed their stay at the shelter. It also serves non-shelter residents. Shelter staff includes a psychologist and a public health nurse. Services are available for hearing-impaired women and those requiring ADA accommodations.

Foundation for the Retarded of the Desert

A group of concerned Coachella Valley parents of mentally and physically challenged children founded the forerunner of today's Foundation for the Retarded in the Desert in 1959. Then known as the Palm Springs Foundation for Mentally Retarded Citizens, this new organization provided weekly education and recreational sessions that eventually grew into daily educational programs. In 1969 the Foundation purchased its first property in Palm Desert. The current facility, located at 73255 Country Club Drive in Palm Desert, was built in 1983. Programs include Desert Valley Industries (DVI), a division of the Foundation, which provides job training and work experience to developmentally disabled individuals.

DVI is the Coachella Valley's only employer its kind. Other programs include supported employment, in which small groups of Foundation-trained clients work alongside non-developmentally disabled persons in valley businesses. Other community-based programs focus on individual needs of severely disabled persons, seeking their maximum growth, progress, and opportunities for participation in the community.

The Foundation also operates Thrift Stores, located in Palm Springs and Indio, Special services include caregiver respite care, individual counseling, and the Sagewood Adult Residential Home. Sagewood is a 24-hour supervised residence for four developmentally disabled persons, providing them the opportunity to gain independent skills and learn firsthand how to run a household.

Desert Aids Project

The Desert Aids Project, located in Palm Springs, provides anonymous HIV testing, home care, and counseling regarding finances, legal matters, nutrition, re-employment, substance abuse and psychological issues. Housing assistance, dental referrals, childcare and other services are also available. The Project is an education and prevention program and is the primary provider of services to HIV-affected persons in the region. It currently serves approximately 50 clients in Palm Desert.

Health Care Education and Training

Riverside County Office of Education's Regional Occupational Program offers a variety of health care education programs and courses. At locations throughout the valley, coursework is offered in Dental Assisting, Dental X-Ray Technology, Emergency Medical Technology, Pharmacy Technology, Acute Hospital/Community Health, Home Health Aide, Medical Assisting, or Sports Therapy. Classrooms are located on-site at applicable businesses or in classrooms equipped to industry-standards. Courses primarily target high school seniors and juniors, although adult students are admitted to the programs. The courses are tuition-free after the registration fee, books and materials' costs.

College of the Desert's (COD) Health Sciences Division offers Associates of Science Degrees in Nursing Registered and Vocational Nursing programs, as well as a shorter-term certificate program in Vocational Nursing. The Health Sciences Division also offers programs in Emergency Medical Technology (EMT), and Health Sciences. Tuition fees are minimal for California residents; costs may include books, materials, program-specific fees such as uniforms and equipment, and standard campus fees.

Institute of Critical Care Medicine

Institute of Critical Care Medicine (ICCM), currently located in Palm Springs, is an independent research facility founded in 1961 to decrease deaths due to infection, trauma, and heart and lung failure. The Institute relocated to the desert in 1991 in order to be closer to its parent organization, University of Southern California. Co-founder Dr. Max Harry Weil is credited with the institution of the Intensive Care Unit concept. ICCM's current focus is primarily on CPR research, education and new technology. ICCM has proposed a new 24,000 square foot facility to be built in Rancho Mirage. The new facility would increase ICCM's research and teaching space and capabilities. ICCM attracts top CPR researchers to the desert through its fellowship program and yearly conferences.

Other Specialists

Palm Desert has a number of varied and specialized practitioners located within the City and planning area. These include the Truly Open MRI Center at the corner of Fred Waring and Monterey and the Southwest Pain Control and Sports Therapy clinic located on Highway 111 between Monterey Avenue and Portola Avenue. Several psychiatrists and psychologists maintain offices along the El Paseo shopping district, and other such providers have locations throughout the City. There are also several podiatrists, dermatologists, and plastic surgeons within the City.

ACCESSIBILITY AND TRANSPORTATION

Patients needing transportation to and from dental and medical appointments may utilize one of the Desert Health Car vans operated by the Desert Health Care Foundation. The transportation is free of charge and is available to anyone needing such transportation west of Cook Street in Palm Desert. Riders must be ambulatory. For persons needing transportation throughout the Valley, SunDial, a service of SunLine Transit, is available for a minimal fee to qualifying individuals. Pregnant women and women with infants may qualify for the Desert Health Foundation's "Mom Mobile," which operates in the eastern end of the valley and will provide transportation to and from medical appointments.

Disabled Transportation Services is a private organization which transports persons needing medical transportation between facilities or from home to facilities within Riverside County. They maintain an office in Palm Desert. DTS' services are non-emergency and they provide basic life support as needed. Services are provided for a fee.

Emergency medical transport is available to Palm Desert residents through the Cove Communities Fire Department. There are three fire stations within the city limits, each of which is equipped with and staffed for one ambulance for emergency transport. Advanced Life Support (ALS) is available on these ambulances. In addition, ambulances based out of the Indian Wells and Rancho Mirage fire stations are available to respond to 911-emergency calls from Palm Desert. Should these ambulances be unavailable, American Medical Response (AMR), a private ambulance company based in Palm Springs, would be contacted next to dispatch an emergency vehicle to the site. AMR is the only private provider in the valley of paramedic level services (ALS) during emergency transfers. It can also provide non-emergency level transports between facilities.

AAA Airstar, an air ambulance service based out of the Bermuda Dunes airport, maintains a fleet of Lear jets available to transport patients regionally, nationally or internationally as needed. Airstar is a private service, which can transport patients with very little notice, subject to jet and pilot availability. This company is generally accessed by seasonal and vacation visitors to the region who become ill or injured and need to return to their home area for treatment.

More information regarding emergency transportation is provided in the Emergency Preparedness Element.

FUTURE DIRECTIONS

Healthy Cities

The Healthy Cities program has potential for yielding further success to promote wellness and healthy living in the community. Currently it is staffed part-time; resources for increasing community awareness, implementing programs, strengthening committee and citizen participation, and pursuing community partnerships are necessarily limited. The City should give consideration to increasing its time and resources investment in this program so that the scope and number of projects can be increased and a broader base of community involvement can be developed.

Well Care Clinic

The Well Care Clinic will provide a significant affordable health care resource within the community. The City has expressed a willingness to consider assistance for initial building costs and should continue to explore ways in which it can partner with the John F. Kennedy Foundation to solidly establish and develop this community resource.

Demographics-Driven Services

The City's demographics indicate that a diversity of health care service programs and local educational opportunities should be available to meet the needs of special populations, including children and the elderly. According to the 2000 U.S. Census, the median age of City residents is 48.0 years.

The City's demographic make-up includes a large percentage (35.4%) of adults between the ages of 25 and 54. This age-group is likely to require a range of cost-effective services, including those which will benefit pre-school and school-aged children. Approximately 24.7% of the City's population is comprised of adults between 65 and 84 years of age. The City should continue to encourage home health care services and providers, and skilled nursing facilities, to locate in Palm Desert.

Palm Desert's planning area extends north to the southern boundary of Joshua Tree National Park, and south into the Santa Rosa Mountains. Based on Year 2000 Census data, populations of other communities in the General Plan planning area include Thousand Palms (5,120 residents), Bermuda Dunes (6,229 residents). Other unincorporated communities in the planning area include Del Webb's Sun City, Sky Valley, and Cahuilla Hills totaling approximately 9,000 residents. There are currently limited medical resources located in these areas. The City should consider encourage medical service providers to investigate and, when viable, extend resources to provide easier access to medical services for these residents.

GOALS, POLICIES, AND PROGRAMS

Goal

To ensure that adequate and affordable health care is accessible to all community residents and visitors.

Policy 1

The City shall continue to work with local health care providers to ensure the availability of adequate levels of health care services and facilities.

Program 1.A.

To the extent practical, the City shall support the efforts of public and private providers to make available the full range of medical care to all segments of the population.

Responsible Agency: Redevelopment Agency, Community Services Department, City Council, various health care providers.

Schedule: 2005; Continuous

Policy 2

Commensurate with population growth, and responsive to the demographics of the City and the region, the City shall encourage the development of additional research, education and health care services to enhance access to health care training and educational opportunities, and to urgent care, in-home care and other medical treatment.

Program 2.A.

The City shall periodically assess population distributions in the City planning area and, as appropriate, encourage and facilitate development of additional appropriate medical services and facilities such as urgent care, intermediate and long-term, as well as residential in-home care.

Responsible Agency: Redevelopment Agency, City Council, various health care providers

Schedule: 2005; Annually

Program 2.B.

The City shall consult with area medical service providers to consider the establishment of urgent care facilities or other appropriate medical service facilities in outlying areas of the community.

Responsible Agency: Economic Development Department, City Council, Area Hospitals

Schedule: 2005; Continuous

Program 2.C..

The City shall explore opportunities for the development of a Well Care Clinic in the City.

Responsible Agency: Redevelopment Agency, City Council, John F. Kennedy Healthcare Foundation

Schedule: Immediate; 2005-2006.

Program 2.D.

The City shall consult with and, as feasible, encourage collaboration between training and educational providers and area hospitals and other medical service providers to enhance and expand health care-related training and educational programs and offerings within the City.

Responsible Agency: Economic Development Department, City Council, Area Hospitals, College of the Desert, California State University-San Bernardino

Schedule: 2003, Continuous

Policy 3

The City shall encourage the expansion and development of wellness programs that encourage a healthy lifestyle and promote an enhanced quality of life.

Program 3.A.

The City shall expand its involvement in the Healthy Cities program by dedicating increased financial and staff resources to its program development, implementation and administration, utilizing various funding sources and cooperative public/private partnerships.

Responsible Agency: Community Services Department, Finance Department, City Council

Schedule: 2004; Continuous

Program 3.B.

The City shall work with the YMCA of the Desert to explore opportunities for the development of a new, integrated, multiple use YMCA facility.

Responsible Agency: Coachella Valley Recreation and Parks District, City Council, Finance Department, YMCA of the Desert

Schedule: 2004; On-Going

Policy 4

The City shall encourage the availability of adequate, convenient, affordable child care that is accessible to all economic segments of the community."

Program 4.A

In consultation with service providers, the City shall pro-actively participate in planning and coordination that improves and expands the availability of childcare services in the community.

Responsible Parties: Community Services Department

Schedule: On-Going"

EMERGENCY PREPAREDNESS ELEMENT

PURPOSE

The Emergency Preparedness Element outlines the potential for natural and man-made disasters that could affect the City of Palm Desert and its Sphere of Influence and Planning Area. It also describes the plans and facilities currently in place to deal with such hazards and assesses the additional critical facilities and services necessary for the City to respond quickly and efficiently in order to protect its citizens from injury and loss. The Element also discusses systems and approaches that the City has in place to minimize damage, loss of life and impacts to financial resources both during and after an emergency, as well as how the City relates to and coordinates with County, State and Federal agencies in these regards. Finally, it sets forth the City's goals, policies and programs which shape its priorities and direction in sustaining adequate readiness for emergency situations.

BACKGROUND

This Element is directly related to the Geotechnical and Flooding and Hydrology Elements as they provide information regarding natural constraints and hazards, which need to be addressed in emergency planning, as well as the Water, Sewer and Utilities Element, which defines the City's utilities infrastructure and hazard planning associated with these services. The Land Use Element allows the City to address planning issues in making critical facilities accessible and their protection from location-specific hazards. It is also related to and shall be coordinated with the Circulation Element in defining evacuation routes and planning for transport of emergency personnel and supplies. The Police and Fire Protection Element is closely linked as it outlines protection of public safety, rescue operations and emergency transportation during times of disaster. Also related is the Health Services Element, which discusses medical resources available to the community. The Hazardous and Toxic Materials Element defines potential man-made hazards, mismanagement of which can induce the need for emergency response.

The San Andreas Fault intersects the City's northern planning area. The City, its Sphere of Influence, and the Planning Area are most subject to earthquake damage as a result of seismically induced ground shaking. Damage resulting from earthquake-induced settlement, rockslides, fires and flooding could be substantial in the event of a Maximum Probable (6.2) or Maximum Credible (7.4) San Andreas Fault earthquake. (For more information on seismic safety issues, please see the Geotechnical Element). The City is also vulnerable to flooding caused by heavy rainfall and runoff from surrounding hillsides and mountains. Flooding of the Whitewater River can affect crossings at Portola Avenue and Cook Street. Localized flooding can affect local access. The northwestern portion of the planning area is susceptible to flooding should the Riverside County Flood Control District-maintained Wide Canyon Dam fail. Urban wildfires, hazardous materials spills, and major truck, rail or air crashes also pose threats. In addition, domestic terrorism and school and workplace violence are very real potential incidents necessitating action and response plans.

The Emergency Services Element is included in the General Plan as part of a broader discussion of environmental hazards and safety, and in accordance with Government Code Section 65302(g). This section states that the Plan shall address “the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, and other geologic hazards known to the legislative body; flooding; and wild land and urban fires.”

In 1992 the City of Palm Desert adopted The Multi-Hazard Functional Plan. The City further updated the Plan in 1996. It outlines the City’s compliance with the Standard Emergency Management System (SEMS) as required by Government Code 8607(a) relating to “responding to and managing emergencies and disasters involving multiple jurisdictions or multiple agency responses. . . .” SEMS requires that each city use standardized equipment and language so that assistance offered across jurisdictional boundaries can be effectively utilized; adoption of SEMS is also required for the City to be eligible to recover personnel costs related to State-level emergency responses. SEMS incorporates the Incident Command System (ICS), which can be adapted to any scope of emergency and quantifies specific actions, personnel, equipment and facilities necessary to systematically and adequately respond to a particular hazard. Those hazards to which Palm Desert has been determined to be most susceptible have been quantified and the responsible City entities assigned responsibility for field level activities.

The Multi-Hazard Functional Plan is further subdivided into a set of “annexes” outlining the emergency functions and the City entity responsible. These nine annexes cover operational areas of management, fire and rescue, law enforcement/traffic/movement/rescue, public health and medical, coroner, care and shelter, construction and engineering, resources and support, and radiological protection. The multi-hazard function plan model with accompanying ancillary documents, has been the standard used throughout the State. It is regarded as cumbersome and outdated, with more emphasis on structure than on itemized and specific operational checklists. A newer model is based on the Emergency Operations Plan concept, which has now been adopted statewide. Riverside County is in the process of adapting this model to better meet its needs. Once completed, the County will assist cities within the County with further adaptation specific to their jurisdictions. This process is scheduled for completion by the end of 2001.

In order to more practically facilitate operations during an emergency, Palm Desert’s Risk Management Department has developed an additional, internal document called the Palm Desert Hazard Management Plan. This plan, while still SEMS-compliant, provides comprehensive checklists of fundamental emergency-operations actions and tasks, and is utilized when the City’s EOC is activated. The new State/County model, once available and adapted, is to be integrated with this internal document, producing one streamlined, functional emergency preparedness document.

Both the currently adopted Multi-Hazard Functional Plan and the Palm Desert Hazard Management Plan are hereby incorporated by reference into this Element.

Critical Facilities

Critical facilities are those that provide emergency or other services, or shelter, for those in danger. Such facilities are an integral part of any emergency plan. They include hospitals, fire and police stations, evacuation centers and emergency shelters, and utilities installations and systems. Also included are communications networks or facilities, such as police and fire communications systems, amateur radio and emergency broadcast networks, and commercial radio and television stations, which can provide direction to the public during an emergency situation.

Critical facilities also consist of evacuation routes, peak load water supply and distribution, and the availability of emergency transport of the injured and emergency personnel and supplies.

COACHELLACOMM

COACHELLACOMM, which stands for Coachella Communications Group, is part of the Riverside County-mandated network of seven regional committees formed to deal specifically with disaster preparedness. The nine Coachella Valley cities' Emergency Managers, as well as Safety Officers from both Desert Regional Medical Center and Eisenhower Medical Center, serve as COACHELLACOMM members. COACHELLACOMM is currently chaired by the County's Emergency Operations Coordinator.

COACHELLACOMM is working to develop a citizen page-alert system utilizing emergency paging boxes placed in homes. These boxes would be available at a cost to private individuals and would enhance the current Emergency Broadcast System by sounding a warning tone in the event of an emergency. As production costs have proven a constraint to this system, an alternate system utilizing individually owned belt pagers is also under consideration, with technological refinements necessary prior to its full implementation.

Palm Desert participates in the Radio Amateur Civil Emergency Service (RACES) program, which utilizes volunteer amateur radio operators and equipment to provide communications support. These volunteers operate out of the activated EOC and at key locations to provide an additional communications link emergency operations personnel, and to send and receive communications out of the valley as needed. The City has also purchased a satellite telephone to communicate with other valley cities and areas outside the valley in the event that other communication links are disrupted during an emergency.

All valley hospitals are linked to the County EOC in Indio by means of the Ready Net communications system. This computer-based system relies on the County's microwave communications links, which provide greater reliability than telephone lines. Ready Net is accessed on a daily basis to provide a snapshot of the respective hospital's facility, staff and patient-load status. In an emergency, hospitals can provide updated information regarding their availability and needs so that patient traffic can be routed accordingly and emergency supplies and services directed where needed. In addition, RACES personnel are assigned to hospitals to provide back up communication.

Palm Desert is home to a number of gated communities, which are relatively self-contained developments with centrally located clubhouses or activities centers. These central facilities can serve as shelters and communications centers for the community's residents, freeing up resources

elsewhere in the City and minimizing needless and potentially hazardous travel in the aftermath of an emergency. The City's Emergency Management Department has encouraged these developments to incorporate the State-adopted CITIZENS EMERGENCY RESPONSE TEAMS (CERT) program, similar in organizational structure to SEMS, and to stockpile emergency supply reserves which would allow them to remain self-sufficient for a period of 72 hours during an emergency.

Public school campuses also have the potential to become critical facilities during an emergency if converted to shelters. Emergency supplies are stockpiled on-site at school facilities in order to care for students and school personnel should it become necessary for them to remain on the campus for an extended period. As an offshoot of COACHELLACOMM's Schools subcommittee, local school districts have provided teachers with training in triage and first responder medical care to assist students and staff during a disaster.

Currently, the City has three locations pre-designated as emergency shelters. They are the Palm Desert High School gymnasium, located on the high school campus at 43-570 Phyllis Jackson Lane, the College of the Desert gymnasium at 43-500 Monterey Avenue, and the YMCA of the Desert at 43-930 San Pablo Avenue. In an emergency other shelter locations would be designated throughout the City, as deemed necessary. In order for the City to recover associated costs, shelters are established and administered by the American Red Cross.

The City has a stockpile of emergency supplies stored at its Civic Center. It also maintains electrical generators at City Hall and at the City's Corporate Yard to utilize during emergencies as needed.

Emergency Accessibility, Transportation and Circulation

The City's Emergency Plan outlines several north-south and east-west evacuation routes that utilize its major surface streets as means of access towards freeways and other major roadways. In the event of rockslides, the City has identified the prompt clearance and re-establishment of those roadways as a high priority.

The Palm Desert Police Department is responsible for monitoring intersections and establishing traffic control should power outages debilitate traffic signals. The police also notify affected persons of any needed evacuations, and secure access to hazard sites.

The "Priority Road Restoration" plan, currently under development by the nine Coachella Valley Emergency Managers, incorporates a strategy in which each valley city would identify critical roadways within its jurisdiction and the respective city's plan for making these roads passable as quickly as possible. This plan is currently part of the Coachella Valley Association of Governments' Annual Plan; the planning process is on going.

Bridges and overpasses are critical roadway components for delivery of food, water, and medical supplies and personnel, as well as for the evacuation of the injured. Monterey Avenue, Cook Street, and Washington Street serve as major north-south arteries connecting Palm Desert to both I-10 and Highway 111. Connections to Interstate-10 are accessed at Monterey Avenue and Washington Street via all-weather bridges, and via culverts at Cook Street and Portola Avenue.

All of these roadways cross the Whitewater River. The Coachella Valley Water District maintains the Whitewater River Storm Channel, which must be kept free of debris that could potentially decrease its capacity to carry maximum flood flows. The City conducts post-earthquake and flood inspections of bridges and overpasses.

Bermuda Dunes and the Planning Area north of Interstate 10 are unincorporated Riverside County land and as such would be the County's responsibility for coordination of emergency services. Due to their inclusion as part of the City's extended planning area, however, the City should maintain communication with the County of Riverside regarding accessibility into these areas, which extend to the southern boundary of Joshua Tree National Park and includes the communities of Thousand Palms and Sky Valley. Lands north of I-10, in particular, could become isolated should sections of Interstate 10 just north of the City be damaged or otherwise rendered inaccessible.

In the Southern Planning Area, a similar situation exists along Highway 74 and communities such as Royal Carrizo could be similarly isolated should the Highway become blocked or damaged.

Palm Desert is accessible via the Palm Springs International Airport with access by means of helicopter or fixed-wing aircraft. The Bermuda Dunes Regional Airport is within the City's Sphere-of-Influence, and the Desert Resort Regional Airport (formerly Thermal Airport), also a regional facility, is in close proximity to the eastern boundaries of the City's SOI and planning area. While Palm Springs and Bermuda Dunes Airports are situated outside of major fault zones and flood plains, the Desert Resort Regional Airport (formerly Thermal Airport) is in a liquefaction zone and therefore could be potentially affected in the event of a major earthquake.

Emergency and Other Medical Facilities and Supplies

The City of Palm Desert receives emergency medical services primarily through the Cove Communities Fire Department, which is administered through the City's contract with Riverside County. Riverside County operates three fire stations within the City limits, as well as two in its sphere of influence and two in the larger planning area. Each of the three stations within the City limits is equipped and staffed with one ambulance per station which can provide both Basic and Advanced Life Support on site or en route. In addition, those stations within the sphere of influence and planning area are equipped with one fire engine per station. The City is setting aside funds for construction of an additional station to provide service to the area near Cook Street and Interstate 10; the station is projected for completion within the next five years, based on development in the area.

Additional emergency transportation is available through the Cove Communities Fire Stations located in neighboring Indian Wells and Rancho Mirage. In the event these ambulances are unavailable or unable to access an area, the Riverside County dispatcher would contact American Medical Response (AMR), a privately-owned ambulance service based in Palm Springs, which can also provide both Basic and Advanced Life Support. Both the Fire Department dispatchers and AMR can communicate with the California Highway Patrol for airlift services based out of the Desert Resort Regional Airport, and with Banning-based Mercy Air.

There are three valley hospitals available to provide emergency services and personnel. Eisenhower Medical Center, in nearby Rancho Mirage, is a general acute care hospital with 261 beds. The hospital has committed to a long-term emergency room expansion. John F. Kennedy Memorial Hospital, located in Indio, is a 130-bed community hospital with a 24-hour emergency room. Desert Regional Medical Center in Palm Springs is a 388-bed full-service acute-care facility with the only County-designated trauma center serving the Coachella Valley. Desert Regional's trauma center includes a complete system of specialized equipment and staff capable of providing advanced emergency care, which goes beyond the level of a typical hospital emergency room. (Also please see the Health Services Element for a more in-depth discussion of hospital facilities).

Each of the hospitals is equipped with back-up generators and sufficient fuel to keep generators running for a period of two weeks following an emergency event. Both Desert Regional and Eisenhower Medical Centers' back up systems will run not only basic medical functions and lighting, but also air conditioning systems. JFK does not have this additional air conditioning back up capacity. Eisenhower's campus includes an on-site well as a supplemental water source. All hospitals are linked to Riverside County via the Ready Net system, described in the Critical Facilities section of this element, and the Riverside County EOC is their first contact in the event of an emergency.

COACHELLACOMM has established several Disaster Medical Caches throughout the valley. These caches contain sufficient medical supplies to serve between 250-300 injured persons at a minimum of one location in each Coachella Valley city. There are three designated medical cache sites within Palm Desert, two of which are fully stocked. Supplies for the third site are stored off-site at City Hall, due to a lack of space at the location. Supplies are portable so that cache sites can be relocated quickly and easily. In the event of a major earthquake, field-trained medical staff would travel to cache sites to manage triage operations and provide emergency medical care. This concept has served as a model for other earthquake-prone cities, including Kobe, Japan.

City Emergency Operations Center

The Palm Desert Emergency Operations Center (EOC) is located at Palm Desert City Hall, 73-510 Fred Waring Drive. The City has also established an Alternate EOC at its Corporate Yard at 74-705 Avenue 42. Should the City find it necessary to access County resources, it can request activation of the County's EOC. The County's Primary EOC is located at the County Administrative Center in Riverside. Its Alternate EOC is located at the County Administrative Center in Indio, with a second Alternate EOC at the SunLine Transit Center in Thousand Palms. The County may also dispatch its Mobile EOC as needed. County EOC's are activated either upon the request of an affected city, or when two or more cities have activated their EOC's.

The City's EOC may be activated at any time the City deems necessary. Activation may be in "management watch" mode to monitor a predicted or developing emergency, or in full activation mode when an emergency is imminent or has already occurred.

Emergency Response Organizational and Chain of Command

Upon activation of the City's EOC, the City Manager assumes the role of Incident Commander and activates the other four SEMS functions of Operations, Finance, Logistics and Planning with their respective areas of responsibility. If the City Manager is unable to fill or continue the duties of Incident Commander, an Assistant City Manager or the Director of Emergency Services assumes those duties.

Each county is designated as an Operational Area, in accordance with Section 8605 of the Emergency Services Act. Should certain conditions be met, which require cooperative efforts on the part of two or more cities within the County or when emergency conditions extend across county lines, the County Operational Area would be activated. Within incorporated areas, the County-designated Operational Area Coordinator would assume responsibility for managing emergency operations in the incorporated jurisdictions within the County. The County Emergency Corps Commander would be responsible for unincorporated areas.

On the state level, the State Office of Emergency Services, directed by the Office of Emergency Services (OES) Director, coordinates among the six Mutual Aid Regions into which the state is divided. Riverside County is part of Mutual Aid Region VI, which also includes the counties of San Diego, Imperial, San Bernardino, Inyo and Mono.

Should Federal intervention and support prove necessary, the Federal Emergency Management Agency (FEMA) is the federal government's liaison with state and local agencies. The American Red Cross is to coordinate its emergency services and care efforts with FEMA.

Once a Local Emergency has been declared and the City's EOC and the County's PEOC or AEOC have been activated, the State OES will be advised. Should the Governor declare a State of Emergency in the impacted areas, the necessary activities are coordinated between the State OES Director, the County's Operational Area Coordinator and Emergency Corps Commander, and the City's Director of Emergency Services. The Governor is responsible for requesting a Presidential declaration of an Emergency or Major Disaster and would then appoint a State Coordinating Officer who coordinates with the Federal Coordinating Officer to support local operations.

Extended Emergency Response, Organizational Structure and Assistance

The City's immediate response to an emergency is crucial to minimizing loss of life and property. In the aftermath of disaster, resulting conditions can threaten health and safety as substantially as did the initial event. The City must keep careful records and follow appropriate reporting procedures to ensure recovery of its financial resources expended during the emergency.

After the immediate crisis is past, the City seeks to assess the damage, contain dangers posed by damaged infrastructure and restore basic services. Fire and Police personnel continue community safety and rescue functions and seek to restore order. Department of Public Works staff provide necessary equipment. County representatives work through the State Coordinating Officer to

execute state and federal assistance programs and begin the recovery process. They will coordinate the establishment of Disaster Application Centers where victims can initiate and access, in one location, on-going emergency and recovery services and provisions such as subsistence monies, loan applications, insurance claims, or other necessities.

The City's OEC remains activated, albeit at decreasing staffing levels, until all records and receipts have been submitted and all projects associated with the emergency have been completed.

FUTURE DIRECTIONS

The City of Palm Desert has devoted substantial resources to its disaster preparedness efforts. Ongoing efforts will need to focus on making sure that plans and systems are maintained and upgraded as needed to keep pace with population growth, new construction, business development, and growth-induced circulation issues. The City must also consider that the expansion of its planning area may over time require extension of emergency services to outlying areas.

Several projects are currently (2001) under development in conjunction with other entities. These include COACHELLACOMM's citizen page alert project, the Priority Road Restoration Project with CVAG, and the adaptation of the new hazard management plan model, currently being adapted by Riverside County. Such initiatives are important refinements to the City's current plans and systems and will strengthen the Coachella Valley's regional disaster readiness.

The City's Emergency Management Department has begun a process of educating residents in gated communities about their need to prepare plans and supplies, which will render them self-sufficient for a period of 72 hours during an emergency. This has proven a challenging task since, for the homeowners involved, other priorities and concerns quickly overtake the initial sense of urgency immediately following an emergency. However, this initiative is an important building block in Palm Desert's development of critical facilities, and staff should continue to develop and implement this program. The City can continue to work with Homeowner's Association leadership at respective communities to assist in their establishment and use of the CERT structure, and provide pre-appraisal of the development's facilities, on-site triage and first aid training, and education about initial responses to emergencies and supplies needed. The City may also want to explore offering incentives to increase the number of communities participating in CERT, as such participation would effectively reduce immediate strain on City resources during an emergency.

Nursing homes, licensed day care facilities and private schools, all of which serve potentially vulnerable populations, are required to develop disaster plans. However, since these are non-public agencies, they may not be part of established communications networks or back up systems. Following an earthquake, the City will seek to do a basic damage assessment of nursing home facilities, but resources may not allow more than a preliminary status check. A more established planning system, which would incorporate skilled nursing facilities into the CERT program, should be explored. It is also critical that the staff at such facilities is fully educated regarding what resources and chain of communication they can access in the event of emergencies.

Private schools and licensed day care facilities should also be included in a comprehensive education and information program, which trains them regarding available resources and also encourages them to adequately prepare for potential disasters. COACHELLACOMM's School's sub-committee provides one such resource. The City also needs to make sure it coordinates with College of the Desert, University of California-Riverside and the soon-to-be built Coachella Valley Campus (CVC) of California State University-San Bernardino (CSUSB) to make sure that campus disaster planning is current, workable and that appropriate campus personnel are adequately informed regarding coordination of disaster planning and response with the City and Riverside County.

Palm Desert was the first valley city to staff the position of Emergency Services Manager. Since the position's establishment fifteen years ago, no additional emergency services staff has been added. The City should allot resources towards identifying and cross-training additional staff. To strengthen the City's emergency preparedness program and also allow for expansion of services to improve contingency planning with all sectors of the community.

In its planning, the City should acquaint itself with how communities in outlying sections of its planning area, such as Thousand Palms and Sky Valley to the north and Royal Carrizo in its southern sphere, might be affected should their primary access routes be damaged or blocked. Discussions with Riverside County about these areas should include planning for emergency supply stockpiling, establishment of communication networks and procedures to include these communities, and awareness and education programs to prepare those areas' residents for sustainability during a crisis period.

GOALS, POLICIES AND PROGRAMS

GOAL

An integrated, comprehensive emergency preparedness plan that provides adequate response and action plans for any hazard scenario which might affect the City's residents and visitors, which effectively minimizes loss of life and economic resources, and which maximizes emergency and recovery resources available through County, State and Federal agencies.

Policy 1

The City shall maintain and update its Multi-Hazard Functional Plan to ensure maximum operational functionality and to incorporate mandated and internal documents.

Program 1.A.

The City shall maintain close communication and coordination with Riverside County to expedite adaptation of the new Emergency Operations Plan model.

Responsible Agency: City Risk Management Department, City Council; County of Riverside Emergency Services Department

Schedule: Immediate; Continuous

Program 1.B

Upon receipt of State/County-adopted Emergency Operations Plan, the City shall begin to incorporate the Palm Desert Hazard Management Plan, including checklists and other critical elements, into one SEMS-compliant document that can serve both legal and internal requirements.

Responsible Agency: City Risk Management Department, City Council

Schedule: 2004-05; Continuous

Policy 2

The City shall collaborate with other Coachella Valley agencies to refine disaster preparedness contingencies, including evacuation/supply routes, communications networks and critical facilities' capabilities.

Program 2.A

As a member of COACHELLACOMM, the City shall continue to cooperatively explore the technical viability, financial feasibility and possible timelines for completion and implementation of the citizen-alert paging and other public notification systems as appropriate.

Responsible Agency: City Risk Management Department, COACHELLACOMM, Riverside County Department of Emergency Services, State Office of Emergency Services

Schedule: 2004-05; Continuous

Program 2.B

Through the Coachella Valley's Emergency Manager's Association, the City shall maintain and enhance communication with Coachella Valley Association of Government's (CVAG) Public Safety Group to facilitate establishment of CVAG's plan for giving precedence to the development of the Priority Road Restoration Plan.

Responsible Agency: City Risk Management Department, Coachella Valley Association of Governments

Schedule: Immediate; Continuous

Program 2.C

The City shall encourage John F. Kennedy Memorial Hospital to investigate grant-funding sources for the installation of additional back up power systems sufficient to run its environmental systems, including air conditioning, and to implement those improvements as soon as possible.

Responsible Agency: City Risk Management Department, Riverside County Department of Emergency Services, John F. Kennedy Memorial Hospital

Schedule: Immediate; Continuous

Policy 3

The City shall encourage the adoption and implementation of the CITIZENS EMERGENCY RESPONSE TEAMS program by gated communities to facilitate those communities' emergency planning and maintenance of adequate supply stockpiles, which will provide the community a 72-hour period of self-sustainability during an emergency.

Program 3.A

The City shall expand its emergency preparedness education programs to offer gated community's annual on-site emergency preparedness appraisals and training.

Responsible Agency: City Risk Management Department, Cove Communities Fire Department, City Police Department, Various Homeowner's Associations

Schedule: Immediate; Continuous

Program 3.B

The City shall explore the possibility of offering incentives to current and future gated communities with populations exceeding a to-be-determined number of households whose Homeowner's Associations elect participation in the CERT program and accompanying emergency preparedness training and planning.

Responsible Agency: City Risk Management Department; City Council, Various Homeowner's Associations

Schedule: Immediate; Continuous

Policy 4

The City shall coordinate with Riverside County Emergency Services, local utilities providers and other agencies, as appropriate, to develop and distribute public information regarding emergency planning, responses, and resources available in the event of an emergency.

Program 4.A

The City shall coordinate with Riverside Emergency Services, CVWD, Southern California Edison, Southern California Gas and other utilities and agencies, as appropriate, to develop and disseminate public education materials advising visitors, residents and local businesses of appropriate responses in preparation for and during an emergency.

Responsible Agency: City Risk Management Department, Riverside County Emergency Services Department, CVWD, Southern California Edison, Southern California Gas Company.

Schedule: 2004-05, Continuous.

Program 4.B

In conjunction with Riverside County Emergency Services, the City shall update its database to include, and coordinate with, all public and private schools, licensed day care facilities, colleges, universities, and nursing homes to develop and disseminate a public education materials to inform those entities regarding as to planning and recourse prior to and during an emergency.

Responsible Agency: City Risk Management Department, Riverside County Emergency Services Department, Desert Sands Unified School District, Palm Springs Unified School District, private schools, licensed day care facilities, College of the Desert, California State University-Coachella Valley Campus, University of California-Riverside, Chapman University, nursing homes within the City.

Schedule: 2004-05, Continuous.

Program 4.C

The City shall encourage the adaptation of the CITIZENS EMERGENCY RESONPONSE TEAMS model for use within nursing homes to secure those facilities for an extended period following an emergency.

Responsible Agency: City Risk Management Department, Riverside County Emergency Services Department, nursing homes within the City.

Schedule: 2004-05, Continuous.

Program 4.D

In conjunction with the County Emergency Services Department, the City shall develop and implement an annual review of emergency preparedness coordination and plans with public higher education facilities.

Responsible Agency: City Risk Management Department, Riverside County Emergency Services, College of the Desert, California State University-San Bernardino-Coachella Valley Campus, University of California-Riverside Extension program.

Schedule: 2004-05, Continuous.

Program 4.E

The City shall encourage that private schools and licensed day care facilities' participate in the COACHELLACOMM Schools' sub-committee to access training, planning information and resources.

Responsible Agency: City Risk Management Department, Riverside County Emergency Services Department, various private schools.

Schedule: 2004-05, Continuous.

Policy 5

The City shall provide for the expansion and refinement of its Emergency Preparedness programs to the greatest extent practical.

Program 5.A.

The City shall begin a process of identifying additional staff Emergency Services to serve as back-up to the Emergency Services Director, and developing and implementing a comprehensive cross-training program between this staff, the Emergency Services Director, and other knowledgeable personnel or consultants who can inform the training process.

Responsible Agency: City Development Services Department; Emergency Services Director; Riverside County Emergency Services Department; additional staff

Schedule: 2004-05, Continuous

Program 5.B.

The City shall identify areas for expansion and refinement of its Emergency Preparedness programs, and develop an implementation strategy for integration into the City's Emergency Operations Plan, upon its adoption.

Responsible Agency: City Development Services Department, Emergency Services Director, additional staff

Schedule: 2004-05, Continuous

Policy 6

The City shall monitor and, as appropriate, advise the County on development planning and proposals which may conflict with the City's hazards assessments or its Emergency Preparedness Plan.

Program 6.A.

The City shall identify constraints that may limit accessibility and resources in its sphere of influence and greater planning area, and will identify necessary services and accessibility to these areas in the event that it should at some point incorporate these areas into its City limits.

Responsible Agency: City Risk Management Department, City Council, Riverside County Planning Department, Riverside County Emergency Services.

Schedule: 2004-05, Continuous

CITY OF PALM DESERT

COMPREHENSIVE GENERAL PLAN

CHAPTER VII

GLOSSARY

GLOSSARY

ADT	Average Daily Trips. The total volume of traffic on a given road averaged over a 24-hour period.
Air Basin	A large region that shares a common geographical area and atmospheric interaction. The boundaries of an air basin are generally mountains, hills, or bodies of water.
Air Pollution Emissions	Discharges into the atmosphere, usually described in weight per unit of time for a given pollutant.
Alluvium	Soil, sand, gravel, or similar material deposited by running water, sometimes miles from its source.
Alquist-Priolo Special Studies Zone	Zones established under the California Alquist-Priolo Special Studies Act, which define potentially and/or recently active earthquake faults which could be hazardous to structures in the event of surface faulting or fault creep.
AQMP	Air Quality Management Plan. A plan to achieve and maintain ambient air quality standards in jurisdictions designated by the state legislature.
Aquifer	A geologic formation which stores, transmits and yields significant quantities of water to wells and springs.
Bikeway	Designated facilities classified, and specifically designated, constructed and intended for the use of bicycle travel.
Blowsand	An environmental condition in which quantities of sand are blown in the wind. This condition may occur in areas of loose sand or sandy loam soils and strong prevailing winds.
Buffers	Land uses which protect public safety and provide sufficient distance and barriers between incompatible land uses by lessening the effects of noise, dust, vibration, visual blight, or other impacts caused by a particular land use.
CDBG	Community Development Block Grant. Federal allocation of funds to a jurisdiction for discretionary disbursement, generally utilized for local community development projects.

CEQA	California Environmental Quality Act. State legislation adopted in 1970 which ensures the protection of the environment. This legislation also required California governmental agencies at all levels to develop standards and procedures necessary to protect the environmental quality of their jurisdiction.
CNEL	Community Noise Equivalent Level. The average equivalent A-weighted sound level during a 24 hour period, obtained after addition of five decibels to sound levels in the evening from 7 p.m. to 10 p.m., and after addition of 10 decibels to sound levels before 7 a.m. and after 10 p.m.
Cogeneration	The process of generating electricity using waste heat from an industrial, commercial, or manufacturing process.
Conservation	The management of natural resources to prevent waste, destruction, or neglect.
Contiguous Development	Development which is adjacent to already existing development, even if separated by roads, streets, utility easements, and railroad rights-of-way.
CVAG	Coachella Valley Association of Governments. An association of local governments that have jurisdiction within the Coachella Valley.
dba	A-weighted Sound Level. The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighted filter deemphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear, and gives good correlation with subjective reactions to noise.
Design Criteria	Specific standards and regulations which guide the design of a project.
Earthquake	A shaking or trembling of the earth's crust that is volcanic or tectonic in nature.
EIR	Environmental Impact Report. An informational document used in the decision-making process which identifies the effects of a proposed project or activity on the natural and man-made environments. It must be prepared in accordance with the California Environmental Quality Act, and must

address nine mandatory issues: project description, environmental setting, adverse environmental effects, short and long term use, irreversible environmental changes, growth inducement, alternatives to the project, and natural and human environmental resources.

Endangered Species

A species or subspecies of bird, mammal, fish, amphibian, reptile or invertebrate for which the prospects of survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition or disease.

Fault

A fracture in the earth's crust forming a boundary between rock masses that have shifted.

Fault Hazard Zone

A designated area of possible fault movement.

Fuel Modification Program

A fire prevention program for those developable areas surrounded by natural open space. The program should include the graduated decreases in native plant densities and the substitution of fire-resistant plants near development areas. The pattern of vegetation removal and introduction of new vegetation should be consistent with wildlife habitat conservation, thus minimizing impacts to the biological composition of the area. Provisions for continued maintenance should also be developed and implemented.

Fire Response Time

The amount of time it takes for the fire department to respond to a first alarm fire.

Floodplain

The land areas that are subject to flooding from the 100 year flood, but not including the actual floodway.

Floodway

The channel of a river or other watercourse and adjacent land areas necessary to discharge the waters from the 100 year flood without increasing the water surface elevation of that flood more than one foot at any point.

Freeway

A highway upon which the abutter's right of access is controlled and which provides separated grades at intersecting streets.

General Plan Road

Any road indicated in the Circulation Element of the General Plan.

Geothermal Resources

The natural heat of the earth, the energy in whatever form below the surface of the earth present in, resulting from,

	created by, or from which may be extracted natural heat, and all minerals in solution or other products in whatever form obtained from naturally heated fluids, brines, associated gases and steam, excluding oil, hydrocarbon gas or other hydrocarbon substances.
Goal	An expression of a general, ultimate ideal to be sought. It reflects basic community values and establishes the emphasis for formulating objectives, policies and implementation measures. They are general, often timeless, and do not lend themselves to measurement.
Ground Rupture	A break in the ground's surface resulting from the movement of a fault.
Groundshaking Zone	A designated area that can be expected to experience a groundshaking intensity during a maximum probable "design" earthquake.
Groundwater	Subsurface or underground water resource.
Hazardous Waste	A waste or combination of wastes, which because of its quantity, concentration or physical, chemical or infectious characteristics poses a substantial present or potential hazard to human health or environment.
High Fire Hazard Areas	An area where, due to slope, fuel, weather or other fire-related condition, the potential loss of life and property from a fire necessitates special fire protection measures and planning before development occurs.
Historic	Important, significant, famous or decisive in history.
Infilling	The building out or completion of development of an area before starting development of adjacent undeveloped lands.
Infrastructure	The physical systems and services which support development and people, such as streets and highways, transit services, airports, water and sewer systems, etc.
LAFCO	Local Agency Formation Commission. A State agency with the responsibility and authority to approve or deny (with or without modification) all proposals for the establishment (incorporation) of cities and special districts, reorganization or dislocation of them, and/or proposals to annex. The LAFCO must also establish a Sphere of Influence for cities and special districts.

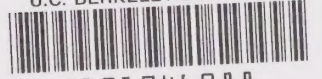
Land Use Category	The classification, which identifies allowable land uses for a project site, based upon the availability of public services and facilities, the adequacy of the circulation system and surrounding area development.
Landfill	A system of trash and garbage disposal in which waste is buried between layers of earth to build up low-lying land.
Ldn	Day-night sound level.
Leach Field	That portion of the septic tank system which disperses dissolved waste products into the surrounding soil.
Liquefaction	A temporary fluid condition in water-saturated loose sandy soil caused by shock, such as an earthquake. It can cause serious soil settlement, slumping, or failure of structure foundations.
Mitigation	The lessening or elimination of the impacts of an action or project through changes in the proposed action or project, or the undertaking of additional measures.
NEPA	National Environmental Policy Act. Federal legislation passed in 1969 which insures that federal actions are not going to lessen environmental quality. This legislation also required public agencies to consider the environmental costs of their actions and provide full disclosure of environmental effects for public review and comment.
Noise Contour	A line on and passing through points exposed to the same sound level. Contours form bands of varying widths centering around a noise source.
Noise Impacted Area	The noise impact area, in square statute miles, is the total land area within the noise impact boundary less area deemed to have a compatible land use.
One Hundred Year Floodplain	The land areas that are subject to flooding from a flood caused by a storm with the statistical likelihood of occurring once in a hundred year time span.
Open Space	Land or water which is essentially unimproved.
Overdraft	The condition of a groundwater basin where the amount of water withdrawn by pumping exceeds the amount of water replenishing the basin.

Paleontology	A science that deals with the life of past geologic periods and is based on the study of fossil remains of plants or animals.
Percolation Test	Test of a soil's ability to absorb and permit seepage of sewage effluent.
Physical Constraint	A physical feature or characteristic of land which prevents or limits the development of that land.
Policy	A statement which sets forth guidelines for future action.
Prehistoric	Relating to times predating written history.
Program	Series of tasks designed to implement policies set forth in the General Plan.
Rare Species	A species or subspecies of bird, mammal, fish, amphibian, reptile or invertebrate that, although not presently threatened with extinction, is in such small numbers throughout its range that it may be endangered if its environment worsens.
Reclamation	The combined process of land treatment that minimizes water degradation, air pollution, damage to aquatic or wildlife habitat, flooding, erosion, and other adverse effects from surface mining operations including adverse surface effects incidental to underground mines, so that mined lands are reclaimed to a usable condition which is readily adaptable for alternate land uses and creates no danger to public health and safety.
Redevelopment Agency	An agency comprised of City staff and/or elected officials, to supervise and allocate funds for the improvement of blighted or otherwise rundown areas of the City.
Retrofitting	Supplying an existing building or facility with new equipment, parts, or features, usually in an effort to improve the efficiency of energy use.
Rights-of-way	The entire width of property for the use of highways, flood and drainage works, overhead and underground utilities, or any related improvements.
Road Alignment	The location of a road in relation to other roads such that they form a connected circulation system.

RSA	Regional Statistical Area. A group of census tracts or districts used for economic analysis.
SCAG	The Southern California Association of Governments. An association of cities providing regional demographic and legislative information for the Southern California area.
Scenic Corridor	The land area outside of the highway right-of-way within the line of sight which can be realistically subjected to protective land use controls.
Seiche	An earthquake-induced wave in a lake, reservoir or harbor.
Seismicity	The quality or state of being of, subject to, or caused by, an earthquake.
Septic Tank	A tank in which the solid matter of continuously flowing sewage is disintegrated by bacteria.
Shall	Indicates an unequivocal directive.
Should	Signifies a slightly less rigid directive than "shall" to be honored in the absence of compelling considerations.
Slump	Soil failure resulting from a slope, which is too steep for the soil's resistance capacity, being barren and exposed to water.
Solid Waste	All solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes.
Specific Plans	A tool to implement the General Plan which details land use and circulation plans for a specific site. Specific Plans are required in sensitive areas or those designated for combined commercial and residential uses.
Spheres of Influence	The probable ultimate physical boundaries and service area of a local governmental agency.
Subsidence	The gradual, local settling or sinking of the earth's surface with little or no horizontal motion. Subsidence is usually the result of gas, oil, or water extraction, hydrocompaction, or peat oxidation, and not the result of a landslide or slope failure.

Surface Mining	All, or any part of, the process involved in the mining of minerals on mined lands by removing overburden and mining directly from the mineral deposits, open-pit mining of minerals naturally exposed, mining by the auger method, dredging and quarrying, or surface work incidental to an underground mine.
Tectonics	Of or pertaining to the forces involved in, or the resulting structures or features of the upper part of the earth's crust.
Threatened Species	Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
Transportation Corridor	The area adjacent to major transportation routes.
Trip Generators	Person and vehicular travel generated in accordance with the type and intensity of land use.
Water Basin	The drainage or catchment area of a stream or lake.
Watercourse	A permanent stream; intermittent stream; river, brook, creek, channel or ditch for water, whether natural or manmade.
Watershed	The total area above a given point on a watercourse that contributes water to its flow; the entire region drained by a waterway or which drains into a lake or reservoir.
Zoning	A legal device used by local jurisdictions to control development density and insure that land uses are properly situated in relation to one another.

U.C. BERKELEY LIBRARIES



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